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# Violence-Related Behaviors Among High School Students — United States, 1991–2003

Homicide and suicide are responsible for approximately one fourth of deaths among persons aged 10–24 years in the United States (*1*). Two of the national health objectives for 2010 are to reduce the prevalence of physical fighting among adolescents to ≤32% and to reduce the prevalence of carrying a weapon by adolescents on school property to ≤4.9% (objective nos. 15-38 and 15-39) (*2*). To examine changes in violence-related behaviors among high school students in the United States during 1991–2003, CDC analyzed data from the national Youth Risk Behavior Survey (YRBS). This report summarizes the results of that analysis, which indicated that most violence-related behaviors decreased during 1991–2003; however, students increasingly were likely to miss school because they felt too unsafe to attend. In addition, in 2003, nearly one in 10 high school students reported being threatened or injured with a weapon on school property during the preceding 12 months. Schools and communities should continue efforts to establish physical and social environments that prevent violence and promote actual and perceived safety in schools.

The national YRBS, a component of CDC's Youth Risk Behavior Surveillance System, used independent three-stage (i.e., primary sampling units, schools, and classes) cluster samples for the 1991–2003 surveys to obtain cross-sectional data representative of public- and private-school students in grades 9–12 in the 50 states and the District of Columbia. During 1991–2003, sample sizes ranged from 10,904 to 16,296, school response rates ranged from 70% to 81%, student response rates ranged from 83% to 90%, and overall response rates ranged from 60% to 70%. For each cross-sectional national survey, students completed an anonymous, self-administered questionnaire that included identically worded questions about violence.

For this analysis, temporal changes during 1991–2003 for three behaviors were assessed: 1) weapon (e.g., a gun, knife, or club) carrying (on ≥1 of the 30 days preceding the survey), 2) physical fighting (one or more times during the 12 months preceding the survey), and 3) being in a physical fight that resulted in injuries that had to be treated by a doctor or nurse (one or more times during the 12 months preceding the survey). In addition, temporal changes from 1993–2003 for four school-related behaviors were assessed: 1) weapon carrying on school property (on ≥1 of the 30 days preceding the survey), 2) physical fighting on school property (one or more times during the 12 months preceding the survey), 3) being threatened or injured with a weapon on school property (one or more times during the 12 months preceding the survey), and 4) not going to school because of safety concerns (i.e., feeling too unsafe at school or on the way to or from school on ≥1 of the 30 days preceding the survey). Data are presented only for non-Hispanic black, non-Hispanic white, and Hispanic students because the numbers of students from other racial/ethnic populations were too small for meaningful analysis.

Data were weighted to provide national estimates, and SUDAAN was used for all data analyses. Temporal changes were analyzed by using logistic regression analyses that assessed linear and quadratic time effects simultaneously and controlled for sex, race/ethnicity, and grade. Quadratic trends indicated

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significant but nonlinear trends in the data over time. When a significant quadratic trend accompanied a significant linear trend, the data demonstrated a nonlinear variation (e.g., leveling off or change in direction) in addition to an overall increase or decrease over time. All results were statistically significant ($p<0.05$) unless otherwise noted.

Significant linear and quadratic trends were detected for weapon carrying. Overall, the prevalence of weapon carrying declined significantly, from 26.1% in 1991 to 18.3% in 1997, and then leveled off through 2003 (17.1%) (Table). Similar significant linear and quadratic trends were detected among female, male, white, 10th-, 11th-, and 12th-grade students. Among black, Hispanic, and 9th-grade students, a significant linear decline was detected during 1991–2003.

Overall, physical fighting declined significantly, from 42.5% in 1991 to 33.0% in 2003. Physical fighting also declined significantly among all subgroups except 11th-grade students. Among 11th-grade students, physical fighting declined during 1991–1999 and then remained level through 2003. No significant changes were detected in the prevalence of being injured in a physical fight overall or by subgroup.

Weapon carrying on school property declined significantly, from 11.8% in 1993 to 6.1% in 2003. Weapon carrying also declined significantly among female, male, white, Hispanic, 9th-, 10th-, and 11th-grade students. Significant linear and quadratic trends were detected for weapon carrying on school property among black and 12th-grade students, with the prevalence of carrying a weapon on school property declining during 1993–1999 and then remaining level through 2003.

Physical fighting on school property declined significantly, from 16.2% in 1993 to 12.8% in 2003. A similar significant linear trend was detected among all subgroups.

No significant changes were detected in the prevalence of being threatened or injured with a weapon on school property during 1993–2003 overall or among female, male, Hispanic, 10th-, and 12th-grade students. A significant linear increase during 1993–2003 was detected among white and 9th-grade students. Among black students, being threatened or injured with a weapon on school property declined during 1993–1999 and then increased through 2003. Among 11th-grade students, being threatened or injured with a weapon on school property declined during 1993–1999 and then remained level through 2003.

Not going to school because of safety concerns increased significantly, from 4.4% in 1993 to 5.4% in 2003. Not going to school because of safety concerns also increased significantly among female, white, and 11th-grade students. No significant changes were detected during 1993–2003 among male, black, Hispanic, 9th-, 10th-, and 12th-grade students.

**TABLE. Percentage of high school students who reported violence-related behaviors, by sex, race/ethnicity, and grade — Youth Risk Behavior Survey, United States, 1991–2003***

| Behavior | 1991 % (95% CI†) | 1993 % (95% CI) | 1995 % (95% CI) | 1997 % (95% CI) | 1999 % (95% CI) | 2001 % (95% CI) | 2003 % (95% CI) |
|---|---|---|---|---|---|---|---|
| **Carried a weapon (e.g., a gun, knife, or club)§** | | | | | | | |
| **Overall** | **26.1 (±2.3)** | **22.1 (±2.3)** | **20.0 (±1.3)** | **18.3 (±1.8)** | **17.3 (±1.9)** | **17.4 (±1.9)** | **17.1 (±1.8)¶**** |
| **Sex** | | | | | | | |
| Female | 10.9 (±2.1) | 9.2 (±1.7) | 8.3 (±1.4) | 7.0 (±1.1) | 6.0 (±1.1) | 6.2 (±0.8) | 6.7 (±1.2)¶** |
| Male | 40.6 (±2.9) | 34.3 (±3.3) | 31.1 (±2.0) | 27.7 (±3.1) | 28.6 (±3.4) | 29.3 (±3.3) | 26.9 (±2.6)¶** |
| **Race/Ethnicity** | | | | | | | |
| White, non-Hispanic | 25.1 (±2.6) | 20.6 (±2.8) | 18.9 (±1.8) | 17.0 (±2.5) | 16.4 (±2.7) | 17.9 (±2.6) | 16.7 (±1.9)¶** |
| Black, non-Hispanic | 32.7 (±3.2) | 28.5 (±2.3) | 21.8 (±4.1) | 21.7 (±3.9) | 17.2 (±5.2) | 15.2 (±2.4) | 17.3 (±3.5)¶ |
| Hispanic | 25.8 (±4.4) | 24.4 (±2.6) | 24.7 (±4.1) | 23.3 (±2.8) | 18.7 (±2.7) | 16.5 (±1.5) | 16.5 (±2.6)¶ |
| **Grade** | | | | | | | |
| 9th | 27.5 (±4.0) | 25.5 (±2.8) | 22.6 (±2.5) | 22.6 (±2.6) | 17.6 (±3.1) | 19.8 (±2.8) | 18.0 (±3.5)¶ |
| 10th | 26.8 (±3.2) | 21.4 (±2.2) | 21.1 (±1.8) | 17.4 (±2.6) | 18.7 (±2.6) | 16.7 (±2.2) | 15.9 (±2.2)¶** |
| 11th | 29.0 (±2.5) | 21.5 (±3.2) | 20.3 (±2.8) | 18.2 (±3.3) | 16.1 (±2.6) | 16.8 (±2.5) | 18.2 (±2.4)¶** |
| 12th | 21.3 (±2.3) | 19.9 (±2.9) | 16.1 (±1.8) | 15.4 (±3.2) | 15.9 (±2.8) | 15.1 (±2.5) | 15.5 (±2.1)¶** |
| **In a physical fight††** | | | | | | | |
| **Overall** | **42.5 (±2.4)** | **41.8 (±1.9)** | **38.7 (±2.1)** | **36.6 (±2.0)** | **35.7 (±2.3)** | **33.2 (±1.4)** | **33.0 (±1.9)¶** |
| **Sex** | | | | | | | |
| Female | 34.4 (±2.9) | 31.7 (±2.3) | 30.6 (±2.8) | 26.0 (±2.5) | 27.3 (±3.3) | 23.9 (±1.9) | 25.1 (±1.7)¶ |
| Male | 50.2 (±2.6) | 51.2 (±2.0) | 46.1 (±2.0) | 45.5 (±2.1) | 44.0 (±2.5) | 43.1 (±1.6) | 40.5 (±2.6)¶ |
| **Race/Ethnicity** | | | | | | | |
| White, non-Hispanic | 41.0 (±2.8) | 40.3 (±2.2) | 36.0 (±2.0) | 33.7 (±2.5) | 33.1 (±2.8) | 32.2 (±1.9) | 30.5 (±2.2)¶ |
| Black, non-Hispanic | 50.6 (±4.7) | 49.5 (±3.5) | 41.6 (±3.9) | 43.0 (±3.8) | 41.4 (±6.1) | 36.5 (±3.1) | 39.7 (±2.4)¶ |
| Hispanic | 41.3 (±4.2) | 43.2 (±3.0) | 47.9 (±5.0) | 40.7 (±3.3) | 39.9 (±3.2) | 35.8 (±1.8) | 36.1 (±1.9)¶ |
| **Grade** | | | | | | | |
| 9th | 50.5 (±3.9) | 50.4 (±3.0) | 47.3 (±4.5) | 44.8 (±3.9) | 41.1 (±3.9) | 39.5 (±2.5) | 38.6 (±2.7)¶ |
| 10th | 43.1 (±4.6) | 42.2 (±3.0) | 40.4 (±2.7) | 40.2 (±3.7) | 37.7 (±4.1) | 34.7 (±2.7) | 33.5 (±2.3)¶ |
| 11th | 43.0 (±3.1) | 40.5 (±3.0) | 36.9 (±2.6) | 34.2 (±3.4) | 31.3 (±3.0) | 29.1 (±2.2) | 30.9 (±2.7)¶** |
| 12th | 33.9 (±3.7) | 34.8 (±3.1) | 31.0 (±3.4) | 28.8 (±2.7) | 30.4 (±3.7) | 26.5 (±2.0) | 26.5 (±2.1)¶ |
| **Injured in a physical fight††§§** | | | | | | | |
| **Overall** | **4.4 (±0.8)** | **4.0 (±0.9)** | **4.2 (±0.6)** | **3.5 (±0.6)** | **4.0 (±0.7)** | **4.0 (±0.4)** | **4.2 (±1.0)** |
| **Sex** | | | | | | | |
| Female | 2.7 (±1.0) | 2.7 (±0.8) | 2.5 (±1.0) | 2.2 (±0.5) | 2.8 (±0.8) | 2.9 (±0.5) | 2.6 (±0.6) |
| Male | 6.0 (±1.0) | 5.2 (±1.1) | 5.7 (±1.0) | 4.6 (±0.9) | 5.3 (±0.8) | 5.2 (±0.7) | 5.7 (±1.4) |
| **Race/Ethnicity** | | | | | | | |
| White, non-Hispanic | 3.8 (±0.9) | 3.2 (±1.0) | 3.3 (±0.9) | 2.5 (±0.5) | 3.2 (±0.7) | 3.4 (±0.5) | 2.9 (±0.8) |
| Black, non-Hispanic | 6.6 (±1.2) | 6.4 (±1.8) | 4.3 (±1.4) | 5.7 (±1.7) | 6.3 (±2.2) | 5.3 (±0.8) | 5.5 (±1.0) |
| Hispanic | 4.3 (±1.6) | 5.1 (±1.2) | 6.4 (±1.7) | 4.3 (±1.0) | 5.8 (±1.6) | 4.4 (±1.1) | 5.2 (±1.3) |
| **Grade** | | | | | | | |
| 9th | 5.2 (±1.2) | 4.1 (±1.0) | 4.7 (±1.4) | 4.6 (±1.2) | 4.4 (±1.1) | 4.5 (±0.7) | 5.0 (±2.1) |
| 10th | 4.7 (±1.6) | 4.0 (±1.1) | 3.4 (±0.8) | 4.0 (±1.0) | 4.1 (±1.7) | 4.6 (±1.0) | 4.2 (±0.8) |
| 11th | 3.9 (±0.9) | 4.0 (±1.4) | 4.3 (±1.1) | 2.8 (±0.9) | 3.7 (±1.5) | 3.1 (±0.8) | 3.6 (±0.8) |
| 12th | 3.6 (±1.4) | 3.7 (±1.3) | 4.3 (±0.7) | 2.8 (±0.7) | 3.7 (±1.3) | 3.4 (±0.8) | 3.1 (±1.0) |
| **Carried a weapon (e.g., a gun, knife, or club) on school property§** | | | | | | | |
| **Overall** | — | **11.8 (±1.4)** | **9.8 (±0.9)** | **8.5 (±1.5)** | **6.9 (±1.2)** | **6.4 (±1.0)** | **6.1 (±1.1)¶** |
| **Sex** | | | | | | | |
| Female | — | 5.1 (±1.3) | 4.9 (±1.0) | 3.7 (±0.7) | 2.8 (±0.8) | 2.9 (±0.5) | 3.1 (±1.0)¶ |
| Male | — | 17.9 (±1.9) | 14.3 (±1.4) | 12.5 (±2.9) | 11.0 (±2.1) | 10.2 (±1.7) | 8.9 (±1.5)¶ |
| **Race/Ethnicity** | | | | | | | |
| White, non-Hispanic | — | 10.9 (±1.7) | 9.0 (±1.3) | 7.8 (±2.3) | 6.4 (±1.7) | 6.1 (±1.2) | 5.5 (±1.1)¶ |
| Black, non-Hispanic | — | 15.0 (±1.6) | 10.3 (±2.1) | 9.2 (±1.9) | 5.0 (±1.0) | 6.3 (±1.8) | 6.9 (±1.9)¶** |
| Hispanic | — | 13.3 (±2.2) | 14.1 (±3.3) | 10.4 (±1.9) | 7.9 (±1.4) | 6.4 (±1.0) | 6.0 (±1.1)¶ |
| **Grade** | | | | | | | |
| 9th | — | 12.6 (±1.4) | 10.7 (±1.4) | 10.2 (±1.8) | 7.2 (±2.1) | 6.7 (±1.3) | 5.3 (±2.2)¶ |
| 10th | — | 11.5 (±1.9) | 10.4 (±1.5) | 7.7 (±1.9) | 6.6 (±1.6) | 6.7 (±1.2) | 6.0 (±1.0)¶ |
| 11th | — | 11.9 (±2.8) | 10.2 (±1.8) | 9.4 (±2.6) | 7.0 (±1.2) | 6.1 (±1.4) | 6.6 (±1.6)¶ |
| 12th | — | 10.8 (±1.6) | 7.6 (±1.3) | 7.0 (±1.8) | 6.2 (±1.5) | 6.0 (±1.4) | 6.4 (±1.3)¶** |

**TABLE. (*Continued*) Percentage of high school students who reported violence-related behaviors, by sex, race/ethnicity, and grade — Youth Risk Behavior Survey, United States, 1991–2003***

| Behavior | 1991 % (95% CI†) | 1993 % (95% CI) | 1995 % (95% CI) | 1997 % (95% CI) | 1999 % (95% CI) | 2001 % (95% CI) | 2003 % (95% CI) |
|---|---|---|---|---|---|---|---|
| **In a physical fight on school property††** | | | | | | | |
| **Overall** | — | **16.2 (±1.2)** | **15.5 (±1.6)** | **14.8 (±1.3)** | **14.2 (±1.2)** | **12.5 (±1.0)** | **12.8 (±1.5)¶** |
| **Sex** | | | | | | | |
| Female | — | 8.6 (±1.4) | 9.5 (±1.9) | 8.6 (±1.5) | 9.8 (±1.9) | 7.2 (±0.9) | 8.0 (±1.4)¶ |
| Male | — | 23.5 (±1.4) | 21.0 (±1.9) | 20.0 (±2.0) | 18.5 (±1.3) | 18.0 (±1.5) | 17.1 (±1.8)¶ |
| **Race/Ethnicity** | | | | | | | |
| White, non-Hispanic | — | 15.0 (±1.3) | 12.9 (±1.2) | 13.3 (±1.7) | 12.3 (±1.7) | 11.2 (±1.2) | 10.0 (±1.4)¶ |
| Black, non-Hispanic | — | 22.0 (±2.7) | 20.3 (±2.2) | 20.7 (±2.4) | 18.7 (±3.0) | 16.8 (±2.5) | 17.1 (±2.5)¶ |
| Hispanic | — | 17.9 (±3.1) | 21.1 (±3.3) | 19.0 (±2.9) | 15.7 (±1.8) | 14.1 (±1.7) | 16.7 (±2.2)¶ |
| **Grade** | | | | | | | |
| 9th | — | 23.1 (±3.0) | 21.6 (±3.5) | 21.3 (±2.5) | 18.6 (±2.0) | 17.3 (±1.5) | 18.0 (±2.4)¶ |
| 10th | — | 17.2 (±2.1) | 16.5 (±3.0) | 17.0 (±3.3) | 17.2 (±2.4) | 13.5 (±1.7) | 12.8 (±1.8)¶ |
| 11th | — | 13.8 (±2.5) | 13.6 (±2.0) | 12.5 (±1.7) | 10.8 (±2.0) | 9.4 (±1.4) | 10.4 (±1.8)¶ |
| 12th | — | 11.4 (±1.3) | 10.6 (±1.3) | 9.5 (±1.4) | 8.1 (±2.0) | 7.5 (±1.1) | 7.3 (±1.4)¶ |
| **Threatened or injured with a weapon (e.g., a gun, knife, or club) on school property††** | | | | | | | |
| **Overall** | — | **7.3 (±0.9)** | **8.4 (±1.1)** | **7.4 (±0.9)** | **7.7 (±0.8)** | **8.9 (±1.1)** | **9.2 (±1.5)** |
| **Sex** | | | | | | | |
| Female | — | 5.4 (±0.8) | 5.8 (±1.4) | 4.0 (±0.6) | 5.8 (±1.3) | 6.5 (±1.0) | 6.5 (±1.2) |
| Male | — | 9.2 (±1.3) | 10.9 (±1.2) | 10.2 (±1.4) | 9.5 (±1.6) | 11.5 (±1.3) | 11.6 (±1.9) |
| **Race/Ethnicity** | | | | | | | |
| White, non-Hispanic | — | 6.3 (±1.1) | 7.0 (±1.0) | 6.2 (±1.1) | 6.6 (±0.7) | 8.5 (±1.3) | 7.8 (±1.5)¶ |
| Black, non-Hispanic | — | 11.2 (±1.8) | 11.0 (±3.3) | 9.9 (±1.8) | 7.6 (±1.7) | 9.3 (±1.4) | 10.9 (±1.6)** |
| Hispanic | — | 8.6 (±1.5) | 12.4 (±3.2) | 9.0 (±1.2) | 9.8 (±2.1) | 8.9 (±2.1) | 9.4 (±2.4) |
| **Grade** | | | | | | | |
| 9th | — | 9.4 (±1.8) | 9.6 (±2.0) | 10.1 (±2.0) | 10.5 (±1.9) | 12.7 (±1.7) | 12.1 (±2.5)¶ |
| 10th | — | 7.3 (±1.2) | 9.6 (±2.1) | 7.9 (±2.2) | 8.2 (±1.8) | 9.1 (±1.5) | 9.2 (±2.0) |
| 11th | — | 7.3 (±1.3) | 7.7 (±1.3) | 5.9 (±1.4) | 6.1 (±0.9) | 6.9 (±1.3) | 7.3 (±1.4)** |
| 12th | — | 5.5 (±1.2) | 6.7 (±1.1) | 5.8 (±1.6) | 5.1 (±1.6) | 5.3 (±1.0) | 6.3 (±1.8) |
| **Did not go to school because of safety concerns§** | | | | | | | |
| **Overall** | — | **4.4 (±0.7)** | **4.5 (±0.7)** | **4.0 (±0.6)** | **5.2 (±1.3)** | **6.6 (±1.0)** | **5.4 (±0.8)¶** |
| **Sex** | | | | | | | |
| Female | — | 4.4 (±0.9) | 4.3 (±1.1) | 3.9 (±0.7) | 5.7 (±1.5) | 7.4 (±1.3) | 5.3 (±1.0)¶ |
| Male | — | 4.3 (±0.8) | 4.7 (±1.1) | 4.1 (±0.8) | 4.8 (±1.6) | 5.8 (±1.1) | 5.5 (±1.0) |
| **Race/Ethnicity** | | | | | | | |
| White, non-Hispanic | — | 3.0 (±0.7) | 2.8 (±0.8) | 2.4 (±0.6) | 3.9 (±1.3) | 5.0 (±1.2) | 3.1 (±0.6)¶ |
| Black, non-Hispanic | — | 7.1 (±1.4) | 7.7 (±1.8) | 6.8 (±1.5) | 6.0 (±1.2) | 9.8 (±1.5) | 8.4 (±1.2) |
| Hispanic | — | 10.1 (±1.7) | 8.5 (±2.7) | 7.2 (±1.7) | 11.2 (±3.3) | 10.2 (±1.3) | 9.4 (±1.5) |
| **Grade** | | | | | | | |
| 9th | — | 6.1 (±0.8) | 5.6 (±1.6) | 5.5 (±1.0) | 7.0 (±1.8) | 8.8 (±1.7) | 6.9 (±1.2) |
| 10th | — | 5.2 (±1.4) | 5.0 (±1.2) | 4.0 (±1.0) | 4.8 (±1.4) | 6.3 (±1.3) | 5.2 (±1.1) |
| 11th | — | 3.3 (±1.0) | 4.1 (±1.0) | 4.2 (±1.7) | 4.5 (±1.8) | 5.9 (±1.2) | 4.5 (±1.0)¶ |
| 12th | — | 3.0 (±1.0) | 3.3 (±1.0) | 2.6 (±0.8) | 3.9 (±1.5) | 4.4 (±0.7) | 3.8 (±1.1) |

* Linear and quadratic trend analyses were conducted by using a logistic regression model controlling for sex, race/ethnicity, and grade. Prevalence estimates shown here were not standardized by demographic variables.
† Confidence interval.
§ On ≥1 of the 30 days preceding the survey.
¶ Significant ($p<0.05$) linear effect.
** Significant quadratic effect.
†† One or more times during the 12 months preceding the survey.
§§ Injuries had to be treated by a doctor or nurse.

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**Editorial Note:** The declines observed in weapon carrying and physical fighting, both in general and on school property, correspond with a decline in the national youth homicide rate (*3*). However, not all violent behaviors among youths are declining. The prevalence of being injured in a physical fight has remained stable for each subgroup. In addition, the prevalence of being threatened or injured with a weapon on school property increased among white and 9th-grade students and increased in recent years among black students.

The increasing prevalence of not going to school because of safety concerns might be attributed in part to the increases in students being threatened or injured with a weapon on school property as well as students' heightened sense of vulnerability after an increase in high-profile, school-associated, multiple-victim homicides during the 1990s (*4,5*). Efforts to establish physical and social environments that promote safety and prevent violence, such as those described in CDC's *School Health Guidelines to Prevent Unintentional Injuries and Violence* (*6*), are likely to reduce students' actual and perceived risk for violence. Prevention programs have been effective in helping young persons at high risk and their families acquire the knowledge, skills, and support needed to avoid violence (*7,8*).

The findings in this report are subject to at least two limitations. First, these data pertain only to youths who attended high school. Nationwide, among persons aged 16–17 years, approximately 6% were not enrolled in a high school program and had not completed high school (*9*). Second, the extent of underreporting or overreporting in YRBS cannot be determined; however, the survey questions demonstrate test/retest reliability (*10*).

Although the declines in violence-related behaviors are encouraging, prevention efforts must be sustained if the nation is to achieve its 2010 national health objectives. In 2003, one in three high school students reported involvement in a physical fight, and approximately one in 16 high school students reported carrying a weapon on school property. To further reduce violence-related behaviors among young persons and to have an impact on behaviors that are more resistant to change, continued efforts are needed to monitor these behaviors and to develop, evaluate, and disseminate effective prevention strategies.

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## Racial/Ethnic Disparities in Neonatal Mortality — United States, 1989–2001

Neonatal mortality (i.e., death at age <28 days) accounts for approximately two thirds of infant deaths in the United States. During 1989–2001, neonatal mortality rates (NMRs) declined; however, 2002 preliminary data indicated an increase. To characterize trends in neonatal mortality by gestational age and race/ethnicity, CDC analyzed linked birth/infant death data sets for 1989–1991 and 1995–2001 (2002 linked data were not available). This report summarizes the results of that analysis, which indicated that 1) extremely preterm infants (i.e., born at <28 weeks' gestation) accounted for 49%–58% of neonatal deaths during 1989–2001 and 2) racial/ethnic disparities persisted despite NMR declines among infants of all gestational ages. Public health practitioners, researchers, and clinicians can use these results to determine the efficacy of prevention programs at a national level and consider new studies and programs aimed at reducing preterm births and NMR disparities among racial/ethnic populations.

The number of neonatal deaths was obtained from linked birth/infant death data sets for 1989–1991 and 1995–2001 from CDC's National Center for Health Statistics (*1*). These

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data sets link birth- and death-certificate files for infants aged <1 year who died in the United States*.

NMRs (i.e., deaths at age <28 days per 1,000 live births) among births to U.S. residents were stratified by gestational age and maternal race/ethnicity. Period of gestation was measured on the birth certificate from the first day of the last normal menstrual period to the day of birth. Births with unknown gestational age or implausible birthweight/gestational age combinations (*2*) accounted for <3% of births annually and were excluded from the gestational age-specific analysis. Births at <37 weeks' gestation were classified as preterm and further classified into <28, 28–31, and 32–36 weeks' gestation. Ethnicity was based on the mother's origin as Hispanic or non-Hispanic. For this report, whites, blacks, American Indians/Alaska Natives (AI/ANs), and Asians/Pacific Islanders (A/PIs) are all non-Hispanic. Log-linear–weighted least squares regression was used to estimate the average annual percentage change in mortality during 1989–2001 for gestational age and race/ethnicity.

During 1989–2001, neonatal mortality in the United States declined 25%, from 6.0 deaths per 1,000 live births to 4.5. In 1989 and 2001, NMRs were highest for blacks (11.5 and 8.9, respectively) and lowest for A/PIs (4.3 and 3.1, respectively) (Table 1). In 2001, the NMR for AI/ANs was 4.1; whites, 3.8; and Hispanics, 3.6. Average annual percentage decline in NMRs during 1989–2001 ranged from 1.9% (A/PIs) to 3.0% (AI/ANs).

In 1989 and 2001, preterm infants accounted for approximately 70% of all neonatal deaths. In 2001, preterm infants accounted for 84% of black neonatal deaths and 72%–75%

* Data for 1992–1994 were not analyzed because no national files linked deaths to births for those years.

**TABLE 1. Number and rate* of neonatal deaths† and average annual percentage decline, by maternal race/ethnicity — United States, 1989–2001**

| Maternal race/ethnicity | 1989§ No. | 1989§ Rate | 2001¶ No. | 2001¶ Rate | Average annual % decline 1989–2001** |
|---|---|---|---|---|---|
| **Non-Hispanic** | | | | | |
| White | 13,240 | 4.9 | 8,964 | 3.8 | 2.0 |
| Black | 7,630 | 11.5 | 5,280 | 8.9 | 2.1 |
| American Indian/ Alaska Native | 237 | 6.3 | 161 | 4.1 | 3.0 |
| Asian/Pacific Islander | 557 | 4.3 | 603 | 3.1 | 1.9 |
| **Hispanic** | 2,762 | 5.2 | 3,052 | 3.6 | 2.8 |
| **Total** | **24,426** | **6.0** | **18,060** | **4.5** | **2.3** |

* Per 1,000 live births.
† Deaths at age <28 days.
§ Rates are based on unweighted birth cohort data.
¶ Rates are based on period file by using unweighted data.
** Estimated by using log-linear–regression models and data from 1989–1991 and 1995–2001.

of deaths among infants of other races/ethnicities. Extremely preterm infants accounted for 49% of neonatal deaths overall in 1989 and 58% in 2001. In addition, in 2001, extremely preterm infants accounted for 50%–54% of neonatal deaths among all racial/ethnic populations, except blacks, for whom they comprised 70% of neonatal deaths.

Among extremely preterm infants, NMRs were highest for AI/ANs in 1989 and whites in 2001 (Table 2). Among infants born at 28–31 weeks' gestation, NMRs were highest for whites. NMRs for whites also were highest among infants born at 32–36 weeks' gestation in 1989 but were second to NMRs for AI/ANs in 2001 (Table 2). During 1989–2001, the average annual percentage decline in NMRs among preterm gestational age groups in all racial/ethnic categories was lowest for infants born at <28 weeks' gestation (0.9%–2.5%), compared with infants born at 28–31 and 32–36 weeks' gestation (3.1%–6.4% and 2.3%–4.5%, respectively). Among each preterm group, average annual percentage declines in mortality were lower for blacks and A/PIs. Preterm white infants had greater percentage declines in mortality during this period; however, they continued to have higher NMRs compared with preterm infants of other races/ethnicities (Table 2).

In 1989 and 2001, NMRs among infants born at ≥37 weeks' gestation were highest among blacks and AI/ANs (Table 2). Average annual percentage declines were highest among AI/ANs (5.6%) and A/PIs (5.3%) and lowest for whites (3.0%). In 2001, NMRs within all racial/ethnic populations ranged from 0.7 to 1.2 (Table 2).

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**Editorial Note:** The findings in this report document a considerable decline in neonatal mortality among infants of all gestational ages and racial/ethnic populations during the 1990s; despite this decline, racial/ethnic disparities persisted. Implementation of new therapies and recommendations likely contributed to the decline; however, the effects of these advances might differ within racial/ethnic populations. The medical advances include 1) surfactant therapy, which improves infant lung maturity, resulting in a decreased risk for death for high-risk preterm infants (*3*); 2) folic acid consumption by women of childbearing age to reduce the risk for neural tube defects (*4*); and 3) intrapartum antimicrobial prophylaxis for women colonized with or at high risk for maternal-infant transmission of group B streptococcal infection (*5,6*).

In 2001, blacks continued to have the highest overall NMR, more than twice that of any other racial/ethnic population. The high rate among this population is likely attributable to a combination of high mortality among black infants born at ≥37 weeks' gestation (full-term infants account for approximately 90% of all births) and a high proportion of preterm births (17.6% black preterm births versus 10.8% white preterm births) (*7*).

Preterm white infants had higher NMRs in 2001, compared with other racial/ethnic populations, despite a greater rate of decline in mortality. Although black preterm infants had lower NMRs in 2001, the annual rate of decline was lower than among other racial/ethnic populations. The narrowing gap in mortality between preterm white infants and preterm black

**TABLE 2. Number and rate* of neonatal deaths† and average annual percentage decline, by gestational age and maternal race/ethnicity — United States, 1989–2001**

| Gestational age/ Maternal race/ethnicity | 1989§ | | 2001¶ | | Average annual % decline 1989–2001** |
|---|---|---|---|---|---|
| | No. | Rate | No. | Rate | |
| **<28 weeks** | | | | | |
| **Non-Hispanic** | | | | | |
| White | 5,850 | 528.3 | 4,812 | 404.2 | 2.1 |
| Black | 4,540 | 439.0 | 3,702 | 376.1 | 1.2 |
| American Indian/ Alaska Native | 100 | 561.8 | 79 | 354.3 | 2.5 |
| Asian/Pacific Islander | 199 | 446.2 | 312 | 381.0 | 0.9 |
| **Hispanic** | 1,231 | 481.6 | 1,563 | 354.7 | 2.2 |
| **Total** | **11,920** | **484.7** | **10,468** | **384.9** | **1.8** |
| **28–31 weeks** | | | | | |
| **Non-Hispanic** | | | | | |
| White | 1,494 | 78.0 | 829 | 40.4 | 5.4 |
| Black | 766 | 51.7 | 381 | 32.8 | 3.1 |
| American Indian/ Alaska Native | 25 | 69.1†† | 11 | —§§ | 6.4 |
| Asian/Pacific Islander | 50 | 55.1 | 41 | 26.9†† | 3.9 |
| **Hispanic** | 278 | 61.2 | 263 | 35.5 | 3.8 |
| **Total** | **2,613** | **65.7** | **1,525** | **36.8** | **4.4** |
| **32–36 weeks** | | | | | |
| **Non-Hispanic** | | | | | |
| White | 1,629 | 8.9 | 1,090 | 5.1 | 4.5 |
| Black | 539 | 5.9 | 336 | 4.3 | 2.6 |
| American Indian/ Alaska Native | 21 | 5.9†† | 27 | 6.4†† | 2.7 |
| Asian/Pacific Islander | 78 | 7.2 | 80 | 4.7 | 2.3 |
| **Hispanic** | 319 | 6.7 | 377 | 4.7 | 3.4 |
| **Total** | **2,586** | **7.7** | **1,910** | **4.9** | **3.8** |
| **≥37 weeks** | | | | | |
| **Non-Hispanic** | | | | | |
| White | 3,204 | 1.3 | 1,845 | 0.9 | 3.0 |
| Black | 967 | 1.8 | 597 | 1.2 | 3.4 |
| American Indian/ Alaska Native | 70 | 2.1 | 34 | 1.0†† | 5.6 |
| Asian/Pacific Islander | 164 | 1.4 | 124 | 0.7 | 5.3 |
| **Hispanic** | 623 | 1.3 | 615 | 0.8 | 4.0 |
| **Total** | **5,028** | **1.4** | **3,215** | **0.9** | **3.3** |

* Per 1,000 live births.
† Deaths at age <28 days.
§ Rates are based on unweighted birth cohort data.
¶ Rates are based on period file by using unweighted data.
** Estimated by using log-linear–regression models and data from 1989–1991 and 1995–2001.
†† Estimates are considered highly variable. Rates are based on <50 deaths.
§§ Rates not shown are based on <20 deaths.

infants might reflect the widened distribution of neonatal intensive care in the 1990s beyond urban tertiary-care centers and a possible difference in benefit from surfactant therapy between black and white infants (*8*).

Differences in neonatal mortality trends among racial/ethnic populations also might be explained by changing patterns in the occurrence of multiple births (*9*). The rate of multiple births has increased substantially over the preceding decade, and trends vary among infants of different races/ethnicities. Further analysis examining these differences is needed.

The findings in the report are subject to at least four limitations. First, although greater declines in mortality were found among AI/ANs, the number of infants in this population is small, and trends should be interpreted with caution. Second, NMRs for AI/ANs might be underestimated because of underreporting of very low birthweight infants born on reservations (*10*). Third, gestational age reporting on birth certificate data might be misclassified; however, exclusion of implausible birthweight/gestational age combinations reduces the impact of this limitation. Finally, NMRs during 1995–2001 might vary from reported U.S. vital statistics rates during 1995–2001, which used weighted data to adjust for unlinked infant deaths. To be consistent with data during 1989–1991, unweighted data were used for this trend analysis.

Approximately half of all neonatal mortality occurred in infants born at <28 weeks' gestation, and the percentage has increased over the preceding decade. This increasing trend deserves more detailed analysis and suggests that prevention of these extremely preterm births will contribute to reducing neonatal mortality in the future.

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## National, State, and Urban Area Vaccination Coverage Among Children Aged 19–35 Months — United States, 2003

Each annual birth cohort in the United States comprises approximately 4 million infants. Maintaining the gains in vaccination coverage achieved during the 1990s among these children poses a continuing challenge for public health practitioners. The National Immunization Survey (NIS) provides estimates of vaccination coverage among children aged 19–35 months for each of the 50 states and 28 selected urban areas*. This report summarizes NIS results for 2003†, which indicated substantial increases nationwide in coverage with ≥1 dose of varicella vaccine (VAR) and ≥3 doses of pneumococcal conjugate vaccine (PCV) and the highest coverage ever for all vaccines; however, wide variability in coverage continues among states and urban areas. Continued vigilance is needed to maintain high levels of coverage, and sustained efforts will be required to reduce geographic disparities in coverage.

To collect vaccination data for all age-eligible children, NIS uses a quarterly random-digit–dialing sample of telephone numbers for each of the 78 survey areas. NIS methodology, including the weighting of responses to represent the population of children aged 19–35 months, has been described previously (*1,2*). During 2003, health-care provider vaccination records were obtained for 21,210 children. The overall response rate for eligible households was 62.7%.

National vaccination coverage with ≥1 dose of VAR increased from 80.6% (95% confidence interval [CI] = ±0.9%) in 2002

* Jefferson County, Alabama; Maricopa County, Arizona; Los Angeles, San Diego, and Santa Clara counties, California; District of Columbia; Miami-Dade and Duval counties, Florida; Fulton/DeKalb counties, Georgia; Chicago, Illinois; Marion County, Indiana; Orleans Parish, Louisiana; Baltimore, Maryland; Boston, Massachusetts; Detroit, Michigan; Newark, New Jersey; New York, New York; Cuyahoga and Franklin counties, Ohio; Philadelphia County, Pennsylvania; Davidson and Shelby counties, Tennessee; Bexar, Dallas, and El Paso counties, and Houston, Texas; King County, Washington; and Milwaukee County, Wisconsin.

† For the 2003 reporting period, NIS included children born during February 2000–June 2002.

to 84.8% (95% CI = ±0.8%) in 2003. Coverage for ≥3 doses of PCV increased from 40.9% (95% CI = ±1.1%) in 2002 to 68.1% (95% CI = ±1.0%) in 2003. Coverage for ≥4 doses of PCV, reported for the first time in 2003, was 36.7% (95% CI = ±1.1%). For all other vaccines and series, coverage increased in 2003 compared with 2002 (Table 1).

In 2003, substantial differences remained in estimated vaccination coverage among states (Table 2). Estimated coverage with the 4:3:1:3:3 series[§] ranged from 94.0% in Connecticut to 67.5% in Colorado. The range in coverage among the 28 urban areas was less than that among the states. Among the 28 urban areas, the highest estimated coverage for the 4:3:1:3:3 series was 88.8% in Boston, Massachusetts, and the lowest was 69.2% in Houston, Texas.

[§] Comprises ≥4 doses of diphtheria and tetanus toxoids and pertussis vaccine, diphtheria and tetanus toxoids, and diphtheria and tetanus toxoids and acellular pertussis (DTP/DT/DTaP) vaccine; ≥3 doses of poliovirus vaccine; ≥1 dose of measles-containing vaccine (MCV); ≥3 doses of *Haemophilus influenzae* type B vaccine (Hib); and ≥3 doses of hepatitis B vaccine (hep B).

**Reported by:** *L Barker, PhD, J Santoli, MD, Immunization Svcs Div; M McCauley, MTSC, Office of the Director, National Immunization Program, CDC.*

**Editorial Note:** The findings in this report indicate that among U.S. children aged 19–35 months, estimated coverage with recommended vaccines was greater in 2003 than in 2002 and represented all-time highs. In addition, coverage for the two most recently recommended vaccines, VAR and PCV, increased substantially. The increases in coverage reflect ongoing progress toward achieving the 2010 national health objectives for childhood vaccinations (objectives 14-22 to 14-24) (*3*). Notably, vaccine coverage for the fourth dose of diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine continues to lag behind other vaccines in the 4:3:1:3:3 series, reducing the coverage percentage for the overall series.

Continued vigilance is needed to maintain high levels of coverage. Moreover, increasing coverage in areas where coverage is low remains a priority to reduce the risk for infection and ongoing transmission if disease is introduced.

**TABLE 1. Estimated vaccination coverage among children aged 19–35 months, by selected vaccines and dosages — National Immunization Survey, United States, 1999–2003**

| Vaccine | 1999* % (95% CI††) | 2000† % (95% CI) | 2001§ % (95% CI) | 2002¶ % (95% CI) | 2003** % (95% CI) |
|---|---|---|---|---|---|
| **DTP/DT/DTaP§§** | | | | | |
| ≥3 doses | 95.9 (±0.4) | 94.1 (±0.5) | 94.3 (±0.5) | 94.9 (±0.6) | 96.0 (±0.5) |
| ≥4 doses | 83.8 (±0.8) | 81.7 (±0.8) | 82.1 (±0.8) | 81.6 (±0.9) | 84.8 (±0.8) |
| **Poliovirus ≥3 doses** | 89.6 (±0.6) | 89.5 (±0.6) | 89.4 (±0.7) | 90.2 (±0.7) | 91.6 (±0.7) |
| **Hib¶¶ ≥3 doses** | 93.5 (±0.5) | 93.4 (±0.5) | 93.0 (±0.6) | 93.1 (±0.6) | 93.9 (±0.6) |
| **MMR*** ≥1 dose** | 91.5 (±0.6) | 90.5 (±0.6) | 91.4 (±0.6) | 91.6 (±0.7) | 93.0 (±0.6) |
| **Hepatitis B ≥3 doses** | 88.1 (±0.7) | 90.3 (±0.6) | 88.9 (±0.7) | 89.9 (±0.7) | 92.4 (±0.6) |
| **Varicella ≥1 dose** | 57.5 (±1.0) | 67.8 (±0.9) | 76.3 (±0.8) | 80.6 (±0.9) | 84.8 (±0.8) |
| **PCV†††** | | | | | |
| ≥3 doses | — | — | — | 40.9 (±1.1) | 68.1 (±1.0) |
| ≥4 doses | — | — | — | — | 36.7 (±1.1) |
| **Combined series** | | | | | |
| 4:3:1§§§ | 79.9 (±0.8) | 77.6 (±0.9) | 78.6 (±0.9) | 78.5 (±1.0) | 82.2 (±0.9) |
| 4:3:1:3¶¶¶ | 78.4 (±0.9) | 76.2 (±0.9) | 77.2 (±0.9) | 77.5 (±1.0) | 81.3 (±0.9) |
| 4:3:1:3:3**** | 73.2 (±0.9) | 72.9 (±0.9) | 73.7 (±0.9) | 74.8 (±1.0) | 79.4 (±0.9) |
| 4:3:1:3:3:1†††† | — | 54.1 (±1.0) | 61.3 (±1.0) | 65.5 (±1.1) | 72.5 (±1.0) |

* Born during February 1996–June 1998.
† Born during February 1997–June 1999.
§ Born during February 1998–June 2000.
¶ Born during February 1999–June 2001.
** Born during February 2000–June 2002.
†† Confidence interval.
§§ Diphtheria and tetanus toxoids and pertussis vaccine, diphtheria and tetanus toxoids, and diphtheria and tetanus toxoids and acellular pertussis vaccine.
¶¶ *Haemophilus influenzae* type b.
*** Measles, mumps, and rubella vaccine.
††† Pneumococcal conjugate vaccine.
§§§ Comprises ≥4 doses of DTP/DT/DTaP, ≥3 doses of poliovirus vaccine, and ≥1 dose of measles-containing vaccine.
¶¶¶ 4:3:1 plus ≥3 doses of Hib vaccine.
**** 4:3:1:3 plus ≥3 doses of hepatitis B vaccine.
†††† 4:3:1:3:3 plus ≥1 dose of varicella vaccine.

**TABLE 2. Estimated vaccination coverage levels with 4:3:1*, 4:3:1:3†, 4:3:1:3:3§, and 4:3:1:3:3:1¶ series among children aged 19–35 months, by state and selected urban area — National Immunization Survey, United States, 2003**

| Area | 4:3:1 % | (95% CI**) | 4:3:1:3 % | (95% CI) | 4:3:1:3:3 % | (95% CI) | 4:3:1:3:3:1 % | (95% CI) |
|---|---|---|---|---|---|---|---|---|
| United States | 82.2 | (±0.9) | 81.3 | (±0.9) | 79.4 | (±0.9) | 72.5 | (±1.0) |
| Alabama | 82.7 | (±4.8) | 82.2 | (±4.9) | 80.4 | (±5.0) | 79.1 | (±5.0) |
| Jefferson County | 83.7 | (±5.3) | 83.1 | (±5.4) | 80.6 | (±5.6) | 78.6 | (±5.7) |
| Alaska | 81.9 | (±5.0) | 81.4 | (±5.1) | 79.7 | (±5.2) | 72.9 | (±5.7) |
| Arizona | 78.9 | (±3.9) | 78.8 | (±3.9) | 76.9 | (±4.0) | 68.4 | (±4.4) |
| Maricopa County | 79.8 | (±5.2) | 79.8 | (±5.2) | 77.4 | (±5.3) | 69.3 | (±5.8) |
| Arkansas | 79.7 | (±6.0) | 79.5 | (±6.0) | 76.5 | (±6.4) | 74.5 | (±6.6) |
| California | 81.2 | (±3.4) | 79.6 | (±3.5) | 77.4 | (±3.6) | 75.6 | (±3.7) |
| Los Angeles County | 84.8 | (±4.9) | 83.5 | (±5.0) | 80.3 | (±5.4) | 79.1 | (±5.5) |
| San Diego County | 83.1 | (±5.7) | 81.1 | (±6.1) | 79.2 | (±6.2) | 75.2 | (±6.6) |
| Santa Clara County | 87.1 | (±4.8) | 84.8 | (±5.1) | 83.6 | (±5.3) | 77.3 | (±5.9) |
| Colorado | 69.6 | (±6.4) | 68.6 | (±6.4) | 67.5 | (±6.4) | 63.0 | (±6.6) |
| Connecticut | 95.0 | (±2.7) | 94.6 | (±2.8) | 94.0 | (±2.9) | 89.1 | (±3.9) |
| Delaware | 80.1 | (±6.3) | 79.6 | (±6.3) | 76.3 | (±6.6) | 66.1 | (±7.0) |
| District of Columbia | 80.5 | (±6.3) | 77.2 | (±6.5) | 76.2 | (±6.5) | 71.9 | (±6.8) |
| Florida | 83.8 | (±4.3) | 82.7 | (±5.0) | 81.0 | (±5.1) | 73.7 | (±5.5) |
| Miami-Dade County | 84.7 | (±4.9) | 83.2 | (±5.1) | 81.5 | (±5.2) | 73.1 | (±5.9) |
| Duval County | 81.9 | (±6.2) | 81.4 | (±6.2) | 80.2 | (±6.3) | 75.3 | (±6.6) |
| Georgia | 77.1 | (±6.4) | 76.6 | (±6.4) | 76.6 | (±6.4) | 74.6 | (±6.5) |
| Fulton/DeKalb counties | 77.9 | (±5.7) | 75.4 | (±5.9) | 75.3 | (±5.9) | 71.2 | (±6.2) |
| Hawaii | 83.3 | (±4.7) | 82.8 | (±4.8) | 82.0 | (±4.9) | 78.7 | (±5.4) |
| Idaho | 82.5 | (±5.4) | 81.6 | (±5.5) | 78.1 | (±5.9) | 61.4 | (±6.8) |
| Illinois | 84.9 | (±3.9) | 84.6 | (±3.9) | 82.9 | (±4.1) | 69.1 | (±5.1) |
| Chicago | 77.8 | (±7.2) | 76.8 | (±7.2) | 76.0 | (±7.2) | 71.3 | (±7.3) |
| Indiana | 82.0 | (±5.7) | 81.7 | (±5.7) | 79.0 | (±5.9) | 62.3 | (±6.8) |
| Marion County | 80.2 | (±5.5) | 79.2 | (±5.6) | 75.1 | (±6.0) | 65.9 | (±6.3) |
| Iowa | 84.5 | (±5.0) | 82.6 | (±5.3) | 81.1 | (±5.5) | 63.4 | (±6.7) |
| Kansas | 78.1 | (±6.0) | 77.7 | (±6.0) | 75.7 | (±6.1) | 62.8 | (±6.6) |
| Kentucky | 82.7 | (±6.2) | 81.2 | (±6.6) | 81.0 | (±6.6) | 78.5 | (±6.7) |
| Louisiana | 72.7 | (±5.5) | 72.4 | (±5.6) | 69.9 | (±5.7) | 64.7 | (±5.8) |
| Orleans Parish | 74.8 | (±7.2) | 74.3 | (±7.2) | 73.3 | (±7.3) | 68.4 | (±7.7) |
| Maine | 84.1 | (±5.0) | 81.8 | (±5.2) | 78.6 | (±5.4) | 68.6 | (±6.0) |
| Maryland | 84.6 | (±5.3) | 84.3 | (±5.3) | 81.3 | (±5.8) | 77.4 | (±5.9) |
| Baltimore | 81.4 | (±6.1) | 80.9 | (±6.1) | 77.4 | (±6.4) | 74.3 | (±6.6) |
| Massachusetts | 92.5 | (±3.1) | 91.7 | (±3.2) | 90.7 | (±3.4) | 82.5 | (±4.8) |
| Boston | 90.1 | (±4.5) | 90.1 | (±4.5) | 88.8 | (±4.7) | 85.7 | (±5.2) |
| Michigan | 83.3 | (±4.7) | 82.9 | (±4.8) | 81.5 | (±4.9) | 78.6 | (±5.0) |
| Detroit | 70.7 | (±7.7) | 70.5 | (±7.7) | 69.6 | (±7.7) | 64.1 | (±8.1) |
| Minnesota | 85.3 | (±5.2) | 84.4 | (±5.4) | 83.9 | (±5.5) | 70.7 | (±6.9) |
| Mississippi | 84.0 | (±5.9) | 84.0 | (±5.9) | 83.6 | (±5.9) | 78.2 | (±6.3) |
| Missouri | 84.9 | (±4.8) | 84.2 | (±4.9) | 83.3 | (±5.0) | 74.4 | (±5.7) |
| Montana | 84.9 | (±4.6) | 84.6 | (±4.6) | 80.0 | (±5.3) | 64.7 | (±6.2) |
| Nebraska | 82.7 | (±5.6) | 82.0 | (±5.6) | 80.4 | (±5.7) | 67.8 | (±6.9) |
| Nevada | 78.1 | (±5.5) | 78.1 | (±5.5) | 75.7 | (±5.7) | 65.5 | (±6.3) |
| New Hampshire | 88.8 | (±4.1) | 88.4 | (±4.1) | 86.5 | (±4.4) | 76.1 | (±5.5) |
| New Jersey | 77.0 | (±5.9) | 75.8 | (±6.1) | 75.0 | (±6.1) | 63.6 | (±6.8) |
| Newark | 74.4 | (±6.4) | 74.0 | (±6.4) | 72.7 | (±6.5) | 64.4 | (±6.9) |
| New Mexico | 77.6 | (±6.5) | 77.0 | (±6.6) | 75.2 | (±6.8) | 70.8 | (±7.2) |
| New York | 83.5 | (±3.7) | 81.9 | (±3.9) | 78.6 | (±4.2) | 73.1 | (±4.5) |
| New York City | 80.1 | (±5.7) | 77.2 | (±6.1) | 72.7 | (±6.7) | 69.3 | (±6.8) |
| North Carolina | 89.4 | (±4.3) | 88.6 | (±4.4) | 86.7 | (±4.6) | 77.3 | (±5.7) |
| North Dakota | 82.5 | (±5.7) | 82.5 | (±5.7) | 80.4 | (±5.9) | 63.1 | (±6.7) |

* Comprises ≥4 doses of diphtheria and tetanus toxoids and pertussis vaccine, diphtheria and tetanus toxoids, and diphtheria and tetanus toxoids and acellular pertussis vaccine, ≥3 doses of poliovirus vaccine, and ≥1 dose of measles-containing vaccine.
† 4:3:1 plus ≥3 doses of *Haemophilus influenzae* type b vaccine.
§ 4:3:1:3 plus ≥3 doses of hepatitis B vaccine.
¶ 4:3:1:3:3 plus ≥1 doses of varicella vaccine.
** Confidence interval.

The findings in this report are subject to at least three limitations. First, NIS is a telephone survey; although statistical weights adjust for nonresponse and households without telephones, some bias might remain. Second, NIS relies on provider-verified vaccination histories and assumes that coverage among children whose providers did not respond is similar to that among children whose providers responded; incomplete records and reporting could result in underestimates of coverage. Finally, although national estimates are precise, estimates for states and urban areas should be interpreted with caution (*4*).

Shortages in the supplies of several vaccines used for routine childhood vaccination began in late 2000. Most of these shortages (i.e., DTaP; measles, mumps, and rubella [MMR]; VAR; and combined tetanus and diphtheria toxoids [Td]) ended during 2002; however, a shortage of PCV continued until May 2003 (and was followed by a new PCV shortage in 2004). Although children in the 2003 cohort were eligible to receive one or more vaccines during the shortages, the data in this report do not indicate a negative impact of the vaccine shortage on vaccination coverage of DTaP or MMR at a national level. The effect of the shortage on the rate of increase in usage of VAR or PCV is unknown.

Additional analyses of NIS data are necessary to define the impact of the vaccine supply shortages. A previous analysis focused on the timeliness of vaccination with the third and fourth doses of DTaP and the first dose of MMR for children included in the 2001 and 2002 NIS (*5*). Among children vaccinated only at public clinics or who resided outside metropolitan statistical areas or in the Southern United States census region, those eligible to receive the fourth dose of DTaP during the

**TABLE 2. (*Continued*) Estimated vaccination coverage levels with 4:3:1*, 4:3:1:3†, 4:3:1:3:3§, and 4:3:1:3:3:1¶ series among children aged 19–35 months, by state and selected urban area — National Immunization Survey, United States, 2003**

| Area | 4:3:1 % | 4:3:1 (95% CI**) | 4:3:1:3 % | 4:3:1:3 (95% CI) | 4:3:1:3:3 % | 4:3:1:3:3 (95% CI) | 4:3:1:3:3:1 % | 4:3:1:3:3:1 (95% CI) |
|---|---|---|---|---|---|---|---|---|
| Ohio | 84.4 | (±4.2) | 84.2 | (±4.2) | 82.3 | (±4.3) | 71.0 | (±5.2) |
| Cuyahoga County | 76.2 | (±7.7) | 75.1 | (±7.7) | 73.0 | (±7.7) | 65.9 | (±7.8) |
| Franklin County | 82.9 | (±5.7) | 82.9 | (±5.7) | 81.8 | (±5.7) | 70.7 | (±6.5) |
| Oklahoma | 73.7 | (±7.0) | 72.3 | (±7.1) | 70.5 | (±7.2) | 67.0 | (±7.3) |
| Oregon | 79.9 | (±5.7) | 79.3 | (±5.8) | 76.5 | (±6.1) | 70.3 | (±6.4) |
| Pennsylvania | 87.7 | (±4.0) | 86.9 | (±4.1) | 86.2 | (±4.1) | 79.1 | (±4.9) |
| Philadelphia County | 81.3 | (±5.5) | 80.0 | (±5.6) | 77.2 | (±5.9) | 75.2 | (±6.0) |
| Rhode Island | 88.9 | (±4.7) | 87.3 | (±4.9) | 85.2 | (±5.2) | 79.8 | (±6.0) |
| South Carolina | 85.5 | (±5.1) | 84.6 | (±5.2) | 84.3 | (±5.2) | 80.3 | (±5.7) |
| South Dakota | 83.4 | (±5.6) | 83.4 | (±5.6) | 80.9 | (±5.8) | 60.0 | (±7.1) |
| Tennessee | 81.1 | (±4.4) | 80.5 | (±4.5) | 78.8 | (±4.6) | 73.5 | (±4.8) |
| Davidson County | 83.2 | (±5.4) | 82.7 | (±5.4) | 79.6 | (±5.8) | 76.0 | (±6.0) |
| Shelby County | 78.6 | (±5.6) | 77.2 | (±5.8) | 76.9 | (±5.8) | 68.9 | (±6.2) |
| Texas | 78.1 | (±3.8) | 77.2 | (±3.8) | 74.8 | (±3.9) | 69.8 | (±4.1) |
| Bexar County | 79.1 | (±6.1) | 78.8 | (±6.2) | 77.3 | (±6.2) | 74.9 | (±6.3) |
| City of Houston | 74.8 | (±5.7) | 74.8 | (±5.7) | 69.2 | (±6.2) | 63.3 | (±6.4) |
| Dallas County | 75.9 | (±5.9) | 74.9 | (±5.9) | 70.2 | (±6.1) | 67.0 | (±6.2) |
| El Paso County | 81.6 | (±5.7) | 80.9 | (±5.7) | 77.2 | (±6.1) | 71.6 | (±6.5) |
| Utah | 80.4 | (±5.7) | 80.2 | (±5.7) | 78.8 | (±5.9) | 70.1 | (±6.7) |
| Vermont | 89.7 | (±3.9) | 89.5 | (±3.9) | 83.6 | (±4.8) | 65.3 | (±6.2) |
| Virginia | 85.8 | (±5.2) | 84.8 | (±5.3) | 84.0 | (±5.4) | 79.8 | (±5.7) |
| Washington | 81.0 | (±4.3) | 79.7 | (±4.3) | 75.3 | (±4.6) | 56.2 | (±5.1) |
| King County | 83.8 | (±5.1) | 83.1 | (±5.2) | 77.1 | (±6.0) | 61.2 | (±7.0) |
| West Virginia | 78.9 | (±7.0) | 77.4 | (±7.2) | 74.6 | (±7.4) | 63.2 | (±7.8) |
| Wisconsin | 83.6 | (±4.3) | 82.7 | (±4.3) | 81.2 | (±4.5) | 73.4 | (±5.0) |
| Milwaukee County | 82.3 | (±6.0) | 80.9 | (±6.1) | 78.9 | (±6.3) | 71.1 | (±6.9) |
| Wyoming | 77.2 | (±5.5) | 77.2 | (±5.5) | 75.8 | (±5.6) | 56.8 | (±6.6) |

* Comprises ≥4 doses of diphtheria and tetanus toxoids and pertussis vaccine, diphtheria and tetanus toxoids, and diphtheria and tetanus toxoids and acellular pertussis vaccine, ≥3 doses of poliovirus vaccine, and ≥1 dose of measles-containing vaccine.
† 4:3:1 plus ≥3 doses of *Haemophilus influenzae* type b vaccine.
§ 4:3:1:3 plus ≥3 doses of hepatitis B vaccine.
¶ 4:3:1:3:3 plus ≥1 doses of varicella vaccine.
** Confidence interval.

shortage were less likely to receive it than those who were eligible at some time other than the shortage. No adverse impact on coverage during the shortages was determined for the third dose of DTaP or the first dose of MMR. In addition, a supplementary NIS survey module is being conducted during 2004 to assess parental reports of deferral of vaccination during the shortages and receipt of recall messages from providers. Given the most recent PCV shortage, which began early in 2004 and has begun to resolve (*6–8*), and the likelihood that vaccine shortages will continue to occur (*9,10*), further analyses will be necessary to develop strategies to manage future vaccine supply shortages.

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## West Nile Virus Activity — United States, July 21–27, 2004

During July 21–27, a total of 83 cases of human West Nile virus (WNV) illness were reported from 13 states (Alabama, Arizona, Arkansas, California, Colorado, Florida, Illinois, Iowa, Missouri, New Mexico, Ohio, Pennsylvania, and South Dakota).

During 2004, a total of 265 cases of human West Nile virus illness have been reported through ArboNET from a total of 18 states (Table, Figure). Of these, 161 (61%) cases were reported from Arizona. A total of 143 (56%) of the 265 cases occurred in males; the median age of patients was 50 years (range: 1–85 years). Illness onset ranged from April 23 to July 23; six cases were fatal.

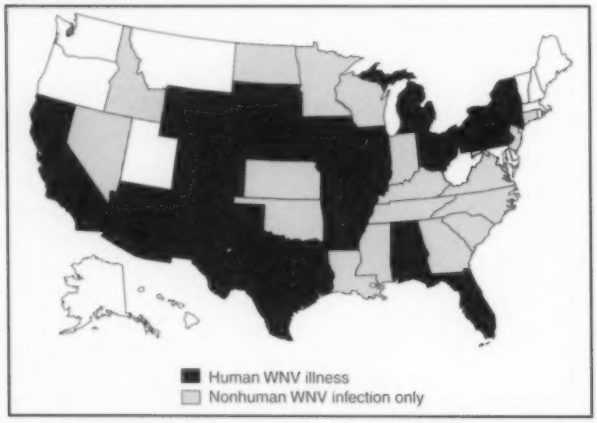
A total of 28 presumptive West Nile viremic blood donors (PVDs) have been reported in 2004 to ArboNET. Of these,

**TABLE. Number of human cases of West Nile virus (WNV) illness, by state — United States, 2004***

| State | Neuroinvasive disease† | West Nile fever§ | Other clinical/ unspecified¶ | Total reported to CDC** | Deaths |
|---|---|---|---|---|---|
| Alabama | 0 | 0 | 1 | **1** | 0 |
| Arizona | 92 | 24 | 45 | **161** | 2 |
| Arkansas | 1 | 2 | 0 | **3** | 0 |
| California | 18 | 19 | 5 | **42** | 1 |
| Colorado | 5 | 25 | 0 | **30** | 0 |
| Florida | 4 | 2 | 0 | **6** | 0 |
| Illinois | 0 | 0 | 1 | **1** | 0 |
| Iowa | 1 | 2 | 0 | **3** | 1 |
| Michigan | 1 | 0 | 0 | **1** | 0 |
| Missouri | 1 | 0 | 0 | **1** | 0 |
| Nebraska | 0 | 1 | 0 | **1** | 0 |
| New Mexico | 1 | 4 | 0 | **5** | 0 |
| New York | 1 | 0 | 0 | **1** | 0 |
| Ohio | 1 | 0 | 0 | **1** | 1 |
| Pennsylvania | 1 | 0 | 0 | **1** | 0 |
| South Dakota | 1 | 3 | 0 | **4** | 0 |
| Texas | 2 | 0 | 0 | **2** | 1 |
| Wyoming | 0 | 1 | 0 | **1** | 0 |
| **Total** | **130** | **83** | **52** | **265** | **6** |

* As of July 27, 2004.
† Cases with neurologic manifestations (i.e., West Nile meningitis, West Nile encephalitis, and West Nile myelitis).
§ Cases with no evidence of neuroinvasion.
¶ Illnesses for which sufficient clinical information was not provided.
** Total number of human cases of WNV illness reported to ArboNet by state and local health departments.

**FIGURE. Areas reporting West Nile virus (WNV) activity — United States, 2004***




* As of 3 a.m., Mountain Standard Time, July 27, 2004.

26 (93%) were reported from Arizona, and one each from Iowa and New Mexico. Of the 28 PVDs, two persons aged 66 and 69 years subsequently had neuroinvasive illness, and five persons (median age: 52 years [range: 22–63 years]) subsequently had West Nile fever.

In addition, during 2004, a total of 1,513 dead corvids and 162 other dead birds with WNV infection have been reported from 32 states. WNV infections in horses have been reported from 16 states (Alabama, Arizona, California, Florida, Idaho, Kentucky, Mississippi, Missouri, Nevada, North Carolina, Oklahoma, South Dakota, Tennessee, Texas, Virginia, and Wyoming) and in a dog from New Mexico. WNV seroconversions have been reported in 209 sentinel chicken flocks from four states (Arizona, California, Florida, and Louisiana) and in a wild hatchling bird from Ohio. Three seropositive sentinel horses were reported from Puerto Rico. A total of 1,030 WNV-positive mosquito pools have been reported from 18 states (Arizona, Arkansas, California, Georgia, Illinois, Indiana, Louisiana, Michigan, Missouri, Nevada, New Jersey, New Mexico, Ohio, Pennsylvania, South Dakota, Tennessee, Texas, and Virginia).

Additional information about national WNV activity is available from CDC at http://www.cdc.gov/ncidod/dvbid/westnile/index.htm and at http://westnilemaps.usgs.gov.

*Notice to Readers*

## Inadvertent Intradermal Administration of Tetanus Toxoid–Containing Vaccines Instead of Tuberculosis Skin Tests

CDC and the Food and Drug Administration (FDA) have been notified about the potential for inadvertent administration of tetanus toxoid–containing vaccines (TTCVs) instead of tuberculin purified protein derivative (PPD) (Tubersol®, Aventis-Pasteur, Swiftwater, Pennsylvania; Aplisol®, Parkedale Pharmaceuticals, Rochester, Michigan) used for tuberculosis skin tests (TSTs). The Vaccine Adverse Event Reporting System (VAERS), a passive surveillance system jointly operated by CDC and FDA (*1*), detected clusters of medication errors in at least two states. These findings, along with another previously reported investigation involving the same error (*2*), suggest the need for health-care providers to take additional steps to minimize the risk for inadvertent intradermal injections of TTCVs.

In April 2004, five reports of medication error involving tetanus toxoid (TT) from a health-care provider were identified. Patients were vaccinated on three different dates; all experienced local reactions without complications. Another cluster reported to VAERS in June 2003 involved an undisclosed number of patients; a health-care provider confused tetanus and diphtheria toxoids (Td) vaccine for adult use (adsorbed) with PPD and administered Td intradermally. Patients with adverse reactions to these administrations had skin reactions interpreted as positive TSTs, which resulted in treatment with isoniazid (INH). Review of the lot numbers on products thought to be PPD revealed they were Td.

trust•wor•thy: *adj*

('trəst-"wər-thē) 1 : worthy of belief

2 : capable of being depended upon;

see also *MMWR*.

know what matters.

MMWR™

Affected patients were identified and retested with PPD; all TSTs were negative. INH was discontinued, and no adverse reactions were observed.

As of March 2004, approximately 100 patients had been identified in reports of TTCV administration instead of PPD. A total of 21 states have reported both clusters and single cases. Vaccines substituted mistakenly for PPD include Td (n = 13 reports), TT (n = 12), and diphtheria and tetanus toxoids, (DT) adsorbed (n = five). For reports of Td, TT, and DT, products involved included those manufactured by Aventis-Pasteur and Wyeth (Collegeville, Pennsylvania) and vaccines from other unspecified manufacturers. CDC and FDA have initiated a full review of adverse events caused by inadvertent administration of vaccines and PPD products reported to VAERS and the FDA MedWatch Program. A preliminary review indicates that multiple vaccines other than TTCVs have been involved.

Similarities in packaging of PPD and TTCVs might have contributed to the medication errors (*3,4*). Both products require refrigeration and often are stored side by side. Lack of availability of Td in single-dose syringes, resulting in provider purchase of multiple-dose vials, was cited as a contributing factor to medication error in one cluster. Conversely, at least eight reports have been documented of inadvertent substitution for vaccine products, resulting in intramuscular administration of PPD (FDA, unpublished data, 2004).

Health-care providers should consider ways to prevent vaccine misadministration. As more vaccines and combination products become available, the potential for medication errors might increase. Possible measures to prevent misadministration should include pharmacy dispensing of vaccines when feasible, physical separation of products, careful visual inspection and reading of labels, preparation of PPD for patient use only at time of testing, and improved record keeping of lot numbers of vaccines and other injectable products. Prevention of such errors through barcode scanning technology is the goal of a recent FDA rule requiring individual drug packages to have identifying barcodes (*5*). For health-care facilities that possess such technology, package scanning could help prevent errors made during pharmacy dispensing of products or during vaccine or PPD administration. In addition, the *Product Identification Guide for Routine Vaccines* is a helpful resource for distinguishing commonly used vaccine products; the guide can be ordered from the California Department of Health Services, telephone 619-594-5933. Adverse events associated with inadvertent vaccine administration can be reported to VAERS at http://www.vaers.org or by telephone, 800-822-7967. Adverse events after PPD administration can be reported to the FDA MedWatch program at http://www.fda.gov/medwatch or by telephone, 800-332-1088.

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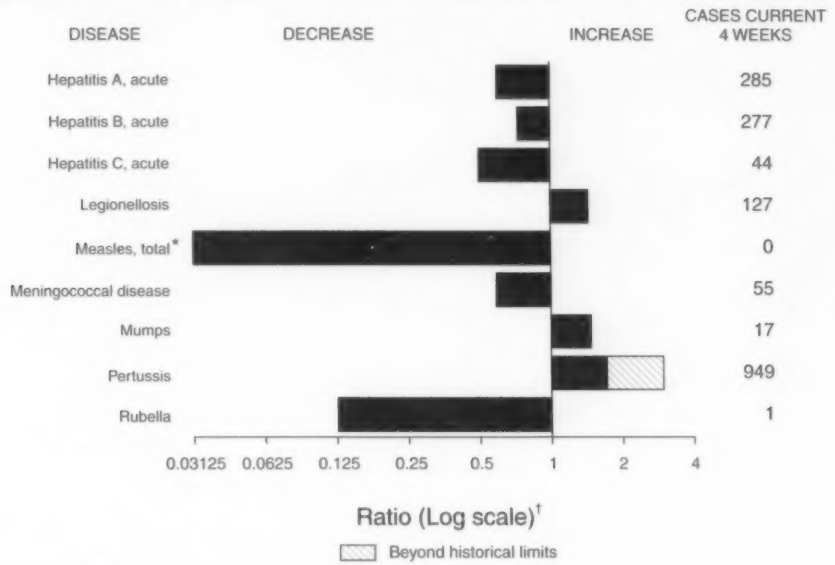
**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals July 24, 2004, with historical data**




* No measles cases were reported for the current 4-week period yielding a ratio for week 29 of zero (0).
† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

**TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending July 24, 2004 (29th Week)***

| | Cum. 2004 | Cum. 2003 | | Cum. 2004 | Cum. 2003 |
|---|---|---|---|---|---|
| Anthrax | - | - | Hemolytic uremic syndrome, postdiarrheal† | 59 | 70 |
| Botulism: | - | - | HIV infection, pediatric†¶ | 88 | 126 |
| foodborne | 7 | 8 | Measles, total | 15** | 34†† |
| infant | 40 | 34 | Mumps | 115 | 122 |
| other (wound & unspecified) | 6 | 12 | Plague | - | 1 |
| Brucellosis† | 61 | 48 | Poliomyelitis, paralytic | - | - |
| Chancroid | 18 | 35 | Psittacosis† | 4 | 6 |
| Cholera | 2 | 1 | Q fever† | 30 | 45 |
| Cyclosporiasis† | 100 | 39 | Rabies, human | 3 | - |
| Diphtheria | - | - | Rubella | 14 | 6 |
| Ehrlichiosis: | - | - | Rubella, congenital syndrome | - | 1 |
| human granulocytic (HGE)† | 86 | 106 | SARS-associated coronavirus disease† §§ | - | 7 |
| human monocytic (HME)† | 75 | 87 | Smallpox† ¶¶ | - | NA |
| human, other and unspecified | 3 | 19 | *Staphylococcus aureus*: | - | - |
| Encephalitis/Meningitis: | - | - | Vancomycin-intermediate (VISA)† ¶¶ | 4 | NA |
| California serogroup viral† § | 5 | 20 | Vancomycin-resistant (VRSA)† ¶¶ | 1 | NA |
| eastern equine† § | - | 6 | Streptococcal toxic-shock syndrome† | 62 | 118 |
| Powassan† § | - | - | Tetanus | 6 | 5 |
| St. Louis† § | 1 | 3 | Toxic-shock syndrome | 58 | 75 |
| western equine† § | - | - | Trichinosis | 2 | - |
| Hansen disease (leprosy)† | 41 | 49 | Tularemia† | 37 | 35 |
| Hantavirus pulmonary syndrome† | 10 | 14 | Yellow fever | - | - |

-: No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).
¶ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update June 27, 2004.
** Of 15 cases reported, eight were indigenous, and seven were imported from another country.
†† Of 34 cases reported, 22 were indigenous, and 12 were imported from another country.
§§ Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (notifiable as of July 2003).
¶¶ Not previously notifiable.

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending July 24, 2004, and July 19, 2003 (29th Week)***

| Reporting area | AIDS | | Chlamydia† | | Coccidiodomycosis | | Cryptosporidiosis | | Encephalitis/Meningitis West Nile§ | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cum. 2004¶ | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 20,281 | 22,888 | 471,782 | 472,421 | 3,129 | 1,749 | 1,292 | 1,176 | 129 | 142 |
| NEW ENGLAND | 727 | 784 | 16,270 | 15,049 | - | - | 73 | 81 | - | - |
| Maine | 10 | 35 | 1,087 | 1,074 | N | N | 13 | 6 | - | - |
| N.H. | 26 | 18 | 890 | 860 | - | - | 16 | 10 | - | - |
| Vt. | 13 | 6 | 567 | 547 | - | - | 10 | 15 | - | - |
| Mass. | 235 | 326 | 7,531 | 5,878 | - | - | 23 | 38 | - | - |
| R.I. | 70 | 63 | 1,821 | 1,650 | - | - | 2 | 9 | - | - |
| Conn. | 373 | 336 | 4,374 | 5,040 | N | N | 9 | 3 | - | - |
| MID. ATLANTIC | 4,432 | 5,065 | 62,404 | 58,499 | - | - | 199 | 161 | 2 | 8 |
| Upstate N.Y. | 591 | 618 | 12,220 | 10,544 | N | N | 49 | 40 | - | - |
| N.Y. City | 2,341 | 2,315 | 17,941 | 19,200 | - | - | 47 | 56 | 1 | - |
| N.J. | 788 | 929 | 9,363 | 8,714 | - | - | 11 | 9 | - | - |
| Pa. | 712 | 1,203 | 22,880 | 20,041 | N | N | 92 | 56 | 1 | 8 |
| E.N. CENTRAL | 1,724 | 2,373 | 79,169 | 85,449 | 7 | 3 | 308 | 302 | 2 | 7 |
| Ohio | 237 | 419 | 19,305 | 23,124 | - | - | 86 | 41 | 1 | 4 |
| Ind. | 219 | 305 | 9,969 | 9,463 | N | N | 39 | 31 | - | 3 |
| Ill. | 852 | 1,117 | 20,573 | 26,547 | - | - | 13 | 43 | - | - |
| Mich. | 326 | 417 | 20,410 | 16,911 | 7 | 3 | 71 | 52 | 1 | - |
| Wis. | 90 | 115 | 8,912 | 9,404 | - | - | 99 | 135 | - | - |
| W.N. CENTRAL | 407 | 410 | 28,291 | 27,017 | 4 | 2 | 185 | 127 | 2 | 22 |
| Minn. | 95 | 77 | 5,261 | 5,921 | N | N | 60 | 47 | - | 2 |
| Iowa | 28 | 45 | 3,136 | 3,102 | N | N | 36 | 25 | - | 4 |
| Mo. | 181 | 203 | 10,687 | 9,810 | 3 | 1 | 31 | 10 | 1 | - |
| N. Dak. | 12 | 1 | 875 | 856 | N | N | 8 | 10 | - | 1 |
| S. Dak. | 6 | 6 | 1,369 | 1,362 | - | - | 23 | 21 | 1 | 6 |
| Nebr.** | 18 | 30 | 2,895 | 2,193 | 1 | 1 | 14 | 6 | - | 8 |
| Kans. | 67 | 48 | 4,068 | 3,773 | N | N | 13 | 8 | - | 1 |
| S. ATLANTIC | 6,151 | 6,435 | 90,552 | 88,543 | - | 3 | 234 | 159 | 4 | 5 |
| Del. | 83 | 133 | 1,558 | 1,684 | N | N | - | 3 | - | - |
| Md. | 690 | 729 | 10,212 | 8,994 | - | 3 | 10 | 8 | - | - |
| D.C. | 354 | 656 | 1,716 | 1,811 | - | - | 6 | 3 | - | - |
| Va. | 336 | 507 | 12,286 | 10,494 | - | - | 25 | 14 | - | - |
| W. Va. | 31 | 49 | 1,546 | 1,382 | N | N | 3 | 3 | - | - |
| N.C. | 344 | 632 | 15,666 | 14,177 | N | N | 41 | 19 | - | - |
| S.C.** | 376 | 435 | 8,716 | 7,716 | - | - | 9 | 2 | - | 1 |
| Ga. | 894 | 953 | 15,391 | 19,164 | - | - | 78 | 60 | - | - |
| Fla. | 3,043 | 2,341 | 23,461 | 23,121 | N | N | 62 | 47 | 4 | 4 |
| E.S. CENTRAL | 958 | 982 | 29,548 | 30,574 | 2 | 1 | 54 | 62 | - | 8 |
| Ky. | 107 | 83 | 3,109 | 4,490 | N | N | 21 | 13 | - | - |
| Tenn.** | 391 | 437 | 12,213 | 10,926 | N | N | 12 | 23 | - | - |
| Ala. | 233 | 249 | 5,847 | 8,164 | - | - | 12 | 23 | - | 5 |
| Miss. | 227 | 213 | 8,379 | 6,994 | 2 | 1 | 9 | 3 | - | 3 |
| W.S. CENTRAL | 2,544 | 2,352 | 60,759 | 59,017 | 2 | - | 39 | 31 | 3 | 59 |
| Ark. | 124 | 86 | 4,263 | 4,226 | 1 | - | 12 | 5 | 1 | - |
| La. | 576 | 400 | 12,666 | 11,938 | 1 | - | - | 2 | - | 15 |
| Okla. | 90 | 109 | 6,349 | 5,913 | N | N | 12 | 6 | - | 3 |
| Tex. | 1,754 | 1,757 | 37,481 | 36,940 | - | - | 15 | 18 | 2 | 41 |
| MOUNTAIN | 729 | 887 | 24,134 | 27,730 | 1,981 | 1,162 | 66 | 54 | 98 | 33 |
| Mont. | 5 | 10 | 1,215 | 1,132 | N | N | 13 | 12 | - | - |
| Idaho | 9 | 16 | 1,580 | 1,333 | N | N | 7 | 8 | - | - |
| Wyo. | 7 | 5 | 598 | 543 | - | 1 | 2 | 2 | - | 2 |
| Colo. | 137 | 211 | 5,076 | 7,002 | N | N | 27 | 11 | 5 | 30 |
| N. Mex. | 107 | 62 | 2,586 | 4,124 | 9 | 5 | 3 | 3 | 1 | 1 |
| Ariz. | 284 | 392 | 8,915 | 8,272 | 1,920 | 1,132 | 11 | 3 | 92 | - |
| Utah | 34 | 39 | 1,922 | 2,059 | 18 | 4 | 2 | 9 | - | - |
| Nev. | 146 | 152 | 2,242 | 3,265 | 34 | 20 | 1 | 6 | - | - |
| PACIFIC | 2,609 | 3,600 | 80,655 | 80,543 | 1,133 | 578 | 134 | 199 | 18 | - |
| Wash. | 214 | 247 | 9,779 | 8,630 | N | N | 14 | 25 | - | - |
| Oreg. | 133 | 145 | 4,497 | 4,196 | - | - | 17 | 25 | - | - |
| Calif. | 2,201 | 3,136 | 62,862 | 62,643 | 1,133 | 578 | 102 | 149 | 18 | - |
| Alaska | 15 | 13 | 1,988 | 2,131 | - | - | - | - | - | - |
| Hawaii | 46 | 59 | 1,529 | 2,943 | - | - | 1 | - | - | - |
| Guam | 2 | 5 | - | 385 | - | - | - | - | - | - |
| P.R. | 209 | 620 | 1,374 | 1,318 | N | N | N | N | - | - |
| V.I. | 6 | 17 | 143 | 198 | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | 2 | U | 32 | U | - | U | - | U | - | U |

N: Not notifiable. U: Unavailable. -: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.

* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).

¶ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update June 27, 2004.

** Contains data reported through National Electronic Disease Surveillance System (NEDSS).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 24, 2004, and July 19, 2003 (29th Week)***

| Reporting area | *Escherichia coli*, Enterohemorrhagic (EHEC) | | | | | | Giardiasis | | Gonorrhea | |
|---|---|---|---|---|---|---|---|---|---|---|
| | O157:H7 | | Shiga toxin positive, serogroup non-O157 | | Shiga toxin positive, not serogrouped | | | | | |
| | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 941 | 886 | 104 | 106 | 81 | 62 | 8,204 | 8,732 | 163,592 | 177,472 |
| NEW ENGLAND | 56 | 49 | 27 | 22 | 13 | 4 | 716 | 634 | 3,826 | 3,712 |
| Maine | 2 | 5 | - | - | - | - | 68 | 69 | 135 | 120 |
| N.H. | 10 | 10 | 5 | 2 | - | - | 18 | 22 | 64 | 60 |
| Vt. | 5 | 4 | - | - | 1 | - | 70 | 46 | 47 | 44 |
| Mass. | 26 | 16 | 4 | 7 | 12 | 4 | 322 | 310 | 1,747 | 1,419 |
| R.I. | 5 | 1 | 1 | - | - | - | 54 | 55 | 488 | 495 |
| Conn. | 8 | 13 | 17 | 13 | - | - | 184 | 132 | 1,345 | 1,574 |
| MID. ATLANTIC | 114 | 112 | 15 | 10 | 14 | 14 | 1,859 | 1,828 | 19,936 | 22,377 |
| Upstate N.Y. | 53 | 41 | 8 | 4 | 4 | 6 | 622 | 450 | 4,056 | 4,048 |
| N.Y. City | 23 | 3 | - | - | - | - | 559 | 638 | 5,817 | 7,369 |
| N.J. | 14 | 17 | 3 | 1 | 4 | - | 180 | 267 | 3,581 | 4,751 |
| Pa. | 24 | 51 | 4 | 5 | 6 | 8 | 498 | 473 | 6,482 | 6,209 |
| E.N. CENTRAL | 185 | 226 | 20 | 18 | 10 | 9 | 996 | 1,559 | 32,299 | 37,473 |
| Ohio | 47 | 43 | 6 | 10 | 10 | 9 | 401 | 439 | 9,640 | 12,006 |
| Ind. | 15 | 39 | - | - | - | - | - | - | 3,451 | 3,555 |
| Ill. | 32 | 41 | - | 1 | - | - | 84 | 496 | 8,752 | 11,601 |
| Mich. | 43 | 35 | 4 | - | - | - | 335 | 347 | 8,169 | 7,118 |
| Wis. | 48 | 68 | 10 | 7 | - | - | 176 | 277 | 2,287 | 3,193 |
| W.N. CENTRAL | 202 | 143 | 17 | 17 | 16 | 9 | 959 | 853 | 8,897 | 9,164 |
| Minn. | 38 | 49 | 7 | 8 | 2 | - | 336 | 307 | 1,778 | 1,544 |
| Iowa | 55 | 22 | - | - | - | - | 135 | 118 | 556 | 734 |
| Mo. | 46 | 39 | 10 | 2 | 5 | 1 | 248 | 246 | 4,388 | 4,678 |
| N. Dak. | 5 | 5 | - | 3 | 7 | 2 | 17 | 22 | 63 | 37 |
| S. Dak. | 13 | 9 | - | 3 | - | - | 34 | 23 | 150 | 107 |
| Nebr. | 30 | 8 | - | 1 | - | - | 68 | 65 | 568 | 691 |
| Kans. | 15 | 11 | - | - | 2 | 6 | 121 | 72 | 1,394 | 1,373 |
| S. ATLANTIC | 78 | 65 | 15 | 25 | 19 | 15 | 1,336 | 1,308 | 40,285 | 43,481 |
| Del. | 1 | 2 | N | N | N | N | 26 | 19 | 501 | 648 |
| Md. | 17 | 3 | 1 | 1 | 3 | 1 | 56 | 58 | 4,442 | 4,208 |
| D.C. | 1 | 1 | - | - | - | - | 35 | 20 | 1,249 | 1,350 |
| Va. | 14 | 18 | 6 | 5 | - | - | 222 | 187 | 4,913 | 4,876 |
| W. Va. | 1 | 2 | - | - | - | - | 17 | 20 | 486 | 470 |
| N.C. | - | - | - | - | 9 | 14 | N | N | 8,305 | 8,036 |
| S.C. | 4 | - | - | - | - | - | 28 | 66 | 4,119 | 4,428 |
| Ga. | 16 | 15 | 4 | 3 | - | - | 392 | 417 | 6,599 | 9,348 |
| Fla. | 24 | 24 | 4 | 16 | 7 | - | 560 | 521 | 9,671 | 10,117 |
| E.S. CENTRAL | 41 | 38 | 1 | - | 8 | 4 | 167 | 178 | 12,601 | 14,875 |
| Ky. | 15 | 11 | 1 | - | 5 | 4 | N | N | 1,358 | 1,916 |
| Tenn. | 12 | 15 | - | - | 3 | - | 77 | 80 | 4,446 | 4,401 |
| Ala. | 8 | 9 | - | - | - | - | 90 | 98 | 3,588 | 5,056 |
| Miss. | 6 | 3 | - | - | - | - | - | - | 3,209 | 3,502 |
| W.S. CENTRAL | 44 | 38 | 1 | 3 | 1 | 3 | 137 | 151 | 22,656 | 24,149 |
| Ark. | 8 | 5 | - | - | - | - | 62 | 82 | 2,063 | 2,291 |
| La. | 2 | 1 | - | - | - | - | 19 | 8 | 5,685 | 6,719 |
| Okla. | 10 | 10 | - | - | - | - | 56 | 61 | 2,662 | 2,302 |
| Tex. | 24 | 22 | 1 | 3 | 1 | 3 | - | - | 12,246 | 12,837 |
| MOUNTAIN | 89 | 100 | 7 | 9 | - | 4 | 704 | 722 | 5,235 | 5,871 |
| Mont. | 10 | 4 | - | - | - | - | 24 | 38 | 38 | 57 |
| Idaho | 22 | 25 | 3 | 6 | - | - | 85 | 81 | 43 | 39 |
| Wyo. | 1 | 2 | 1 | - | - | - | 11 | 11 | 28 | 26 |
| Colo. | 18 | 27 | 1 | 1 | - | 4 | 239 | 206 | 1,537 | 1,610 |
| N. Mex. | 4 | 3 | - | 2 | - | - | 40 | 27 | 313 | 675 |
| Ariz. | 10 | 16 | N | N | N | N | 102 | 134 | 1,974 | 2,175 |
| Utah | 15 | 17 | 1 | - | - | - | 151 | 157 | 291 | 189 |
| Nev. | 9 | 6 | 1 | - | - | - | 52 | 68 | 1,011 | 1,100 |
| PACIFIC | 132 | 115 | 1 | 2 | - | - | 1,330 | 1,499 | 17,857 | 16,370 |
| Wash. | 45 | 30 | - | 1 | - | - | 165 | 139 | 1,465 | 1,505 |
| Oreg. | 17 | 19 | 1 | 1 | - | - | 218 | 193 | 600 | 566 |
| Calif. | 62 | 65 | - | - | - | - | 870 | 1,076 | 15,109 | 13,393 |
| Alaska | 1 | 1 | - | - | - | - | 33 | 45 | 315 | 302 |
| Hawaii | 7 | - | - | - | - | - | 44 | 46 | 368 | 604 |
| Guam | N | N | - | - | - | - | - | - | - | 40 |
| P.R. | - | 1 | - | - | - | - | 13 | 116 | 111 | 149 |
| V.I. | - | - | - | - | - | - | - | - | 49 | 49 |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | U | - | U | - | U | - | U | 3 | U |

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 24, 2004, and July 19, 2003 (29th Week)***

| Reporting area | *Haemophilus influenzae*, invasive | | | | | | | | Hepatitis (viral, acute), by type | |
|---|---|---|---|---|---|---|---|---|---|---|
| | All ages | | Age <5 years | | | | | | | |
| | All serotypes | | Serotype b | | Non-serotype b | | Unknown serotype | | A | |
| | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 1,100 | 1,082 | 9 | 15 | 53 | 72 | 110 | 124 | 2,949 | 3,462 |
| NEW ENGLAND | 99 | 72 | 1 | 1 | 5 | 5 | 3 | 3 | 491 | 157 |
| Maine | 7 | 2 | - | - | - | - | - | 1 | 9 | 7 |
| N.H. | 13 | 8 | - | - | 2 | - | - | - | 11 | 9 |
| Vt. | 5 | 6 | - | - | - | - | 1 | - | 8 | 4 |
| Mass. | 44 | 41 | 1 | 1 | - | 5 | 2 | 1 | 422 | 77 |
| R.I. | 3 | 4 | - | - | - | - | - | 1 | 10 | 11 |
| Conn. | 27 | 11 | - | - | 3 | - | - | - | 31 | 49 |
| MID. ATLANTIC | 235 | 227 | - | 1 | 3 | 2 | 28 | 29 | 334 | 737 |
| Upstate N.Y. | 81 | 78 | - | 1 | 3 | 2 | 4 | 7 | 48 | 62 |
| N.Y. City | 47 | 42 | - | - | - | - | 9 | 7 | 127 | 268 |
| N.J. | 42 | 48 | - | - | - | - | 3 | 7 | 62 | 117 |
| Pa. | 65 | 59 | - | - | - | - | 12 | 8 | 97 | 290 |
| E.N. CENTRAL | 183 | 176 | - | 2 | 6 | 3 | 27 | 34 | 266 | 351 |
| Ohio | 69 | 43 | - | - | 2 | - | 11 | 7 | 32 | 68 |
| Ind. | 33 | 28 | - | - | 4 | - | 1 | 2 | 15 | 35 |
| Ill. | 41 | 69 | - | - | - | - | 9 | 18 | 103 | 101 |
| Mich. | 14 | 13 | - | 2 | - | 3 | 5 | 1 | 93 | 114 |
| Wis. | 26 | 25 | - | - | - | - | 1 | 6 | 23 | 33 |
| W.N. CENTRAL | 64 | 71 | 2 | - | 3 | 6 | 4 | 8 | 114 | 102 |
| Minn. | 27 | 25 | 1 | - | 3 | 6 | - | 1 | 28 | 32 |
| Iowa | 1 | - | 1 | - | - | - | - | - | 30 | 16 |
| Mo. | 21 | 31 | - | - | - | - | 2 | 7 | 36 | 31 |
| N. Dak. | 3 | 2 | - | - | - | - | - | - | 1 | - |
| S. Dak. | - | 1 | - | - | - | - | - | - | 2 | - |
| Nebr. | 5 | 1 | - | - | - | - | - | - | 7 | 7 |
| Kans. | 7 | 11 | - | - | - | - | 2 | - | 10 | 16 |
| S. ATLANTIC | 264 | 219 | - | - | 16 | 8 | 20 | 14 | 562 | 739 |
| Del. | 8 | - | - | - | - | - | 2 | - | 5 | 4 |
| Md. | 43 | 51 | - | - | 4 | 4 | 1 | - | 74 | 74 |
| D.C. | - | - | - | - | - | - | - | - | 4 | 24 |
| Va. | 23 | 30 | - | - | - | - | 1 | 5 | 53 | 46 |
| W. Va. | 10 | 8 | - | - | - | - | 3 | - | 2 | 11 |
| N.C. | 40 | 17 | - | - | 5 | 1 | 1 | 1 | 44 | 38 |
| S.C. | 2 | 4 | - | - | - | - | - | 1 | 21 | 23 |
| Ga. | 70 | 42 | - | - | - | - | 12 | 4 | 201 | 300 |
| Fla. | 68 | 67 | - | - | 7 | 3 | - | 3 | 158 | 219 |
| E.S. CENTRAL | 38 | 47 | - | 1 | - | 2 | 8 | 4 | 83 | 98 |
| Ky. | 3 | 3 | - | - | - | 1 | - | - | 13 | 17 |
| Tenn. | 24 | 27 | - | - | - | 1 | 6 | 3 | 46 | 56 |
| Ala. | 11 | 16 | - | 1 | - | - | 2 | 1 | 6 | 12 |
| Miss. | - | 1 | - | - | - | - | - | - | 18 | 13 |
| W.S. CENTRAL | 46 | 51 | 1 | 1 | 5 | 7 | 1 | 4 | 223 | 344 |
| Ark. | 1 | 5 | - | - | - | 1 | - | - | 38 | 19 |
| La. | 8 | 17 | - | - | - | 2 | 1 | 4 | 15 | 32 |
| Okla. | 36 | 27 | - | - | 5 | 4 | - | - | 17 | 6 |
| Tex. | 1 | 2 | 1 | 1 | - | - | - | - | 153 | 287 |
| MOUNTAIN | 128 | 117 | 3 | 6 | 15 | 19 | 13 | 12 | 263 | 263 |
| Mont. | - | - | - | - | - | - | - | - | 4 | 2 |
| Idaho | 5 | 3 | - | - | - | - | 2 | 1 | 12 | 9 |
| Wyo. | - | 1 | - | - | - | - | - | - | 3 | 1 |
| Colo. | 28 | 22 | - | - | - | - | 3 | 4 | 26 | 39 |
| N. Mex. | 25 | 15 | - | - | 5 | 4 | 3 | 1 | 9 | 11 |
| Ariz. | 49 | 61 | - | 6 | 7 | 8 | 1 | 4 | 168 | 149 |
| Utah | 10 | 9 | 2 | - | 1 | 4 | 2 | 2 | 34 | 17 |
| Nev. | 11 | 6 | 1 | - | 2 | 3 | 2 | - | 7 | 35 |
| PACIFIC | 43 | 100 | 2 | 3 | - | 20 | 6 | 16 | 613 | 671 |
| Wash. | 3 | 6 | 2 | - | - | 4 | 1 | 1 | 34 | 35 |
| Oreg. | 29 | 25 | - | - | - | - | 2 | 2 | 42 | 36 |
| Calif. | 3 | 44 | - | 3 | - | 16 | 2 | 8 | 517 | 588 |
| Alaska | 4 | 18 | - | - | - | - | 1 | 5 | 4 | 7 |
| Hawaii | 4 | 7 | - | - | - | - | - | - | 16 | 5 |
| Guam | - | - | - | - | - | - | - | - | - | 2 |
| P.R. | - | - | - | - | - | - | - | - | 11 | 50 |
| V.I. | - | - | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | U | - | U | - | U | - | U | - | U |

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 24, 2004, and July 19, 2003 (29th Week)***

| Reporting area | Hepatitis (viral, acute), by type: B Cum. 2004 | B Cum. 2003 | C Cum. 2004 | C Cum. 2003 | Legionellosis Cum. 2004 | Legionellosis Cum. 2003 | Listeriosis Cum. 2004 | Listeriosis Cum. 2003 | Lyme disease Cum. 2004 | Lyme disease Cum. 2003 |
|---|---|---|---|---|---|---|---|---|---|---|
| UNITED STATES | 3,328 | 3,775 | 634 | 597 | 742 | 890 | 283 | 312 | 6,250 | 8,415 |
| NEW ENGLAND | 185 | 179 | 4 | 3 | 15 | 37 | 11 | 20 | 650 | 1,391 |
| Maine | 1 | 1 | - | - | - | 1 | 3 | 2 | 53 | 46 |
| N.H. | 23 | 11 | - | - | 1 | 5 | 1 | 2 | 52 | 27 |
| Vt. | 2 | 2 | 1 | 3 | 1 | 1 | - | - | 17 | 11 |
| Mass. | 99 | 125 | 3 | - | 4 | 20 | 2 | 11 | 189 | 861 |
| R.I. | 3 | 4 | - | - | 2 | 2 | 1 | - | 80 | 121 |
| Conn. | 57 | 36 | U | U | 7 | 8 | 4 | 5 | 259 | 325 |
| MID. ATLANTIC | 607 | 448 | 68 | 73 | 197 | 208 | 60 | 55 | 4,650 | 5,704 |
| Upstate N.Y. | 53 | 47 | 7 | 9 | 40 | 46 | 22 | 14 | 1,580 | 1,505 |
| N.Y. City | 57 | 137 | - | - | 16 | 21 | 7 | 12 | - | 122 |
| N.J. | 329 | 114 | - | - | 38 | 27 | 11 | 10 | 1,131 | 1,788 |
| Pa. | 168 | 150 | 61 | 64 | 103 | 114 | 20 | 19 | 1,939 | 2,289 |
| E.N. CENTRAL | 285 | 281 | 51 | 89 | 184 | 183 | 48 | 40 | 176 | 519 |
| Ohio | 75 | 80 | 3 | 6 | 99 | 96 | 19 | 10 | 47 | 26 |
| Ind. | 8 | 17 | 2 | 3 | 14 | 11 | 12 | 2 | 3 | 8 |
| Ill. | 33 | 37 | 9 | 14 | 10 | 21 | - | 12 | - | 41 |
| Mich. | 146 | 119 | 37 | 62 | 59 | 41 | 15 | 11 | 12 | - |
| Wis. | 23 | 28 | - | 4 | 2 | 14 | 2 | 5 | 114 | 444 |
| W.N. CENTRAL | 222 | 174 | 207 | 127 | 17 | 40 | 6 | 8 | 136 | 104 |
| Minn. | 27 | 21 | 8 | 4 | 1 | 3 | 2 | 2 | 70 | 60 |
| Iowa | 10 | 4 | - | - | 3 | 6 | 1 | - | 12 | 15 |
| Mo. | 151 | 122 | 199 | 122 | 11 | 19 | 2 | 3 | 45 | 25 |
| N. Dak. | 3 | - | - | - | 1 | 1 | - | - | - | - |
| S. Dak. | - | 2 | - | - | 1 | 1 | - | - | - | - |
| Nebr. | 16 | 15 | - | 1 | - | 2 | 1 | 3 | 6 | 2 |
| Kans. | 15 | 10 | - | - | - | 8 | - | - | 3 | 2 |
| S. ATLANTIC | 1,025 | 1,027 | 103 | 94 | 175 | 247 | 46 | 61 | 538 | 555 |
| Del. | 22 | 6 | - | - | 4 | 8 | N | N | 53 | 102 |
| Md. | 86 | 64 | 13 | 6 | 34 | 61 | 5 | 9 | 339 | 352 |
| D.C. | 13 | 1 | 1 | - | 5 | 1 | - | - | 2 | 4 |
| Va. | 117 | 86 | 13 | 3 | 18 | 46 | 9 | 7 | 42 | 31 |
| W. Va. | 6 | 10 | 17 | 1 | 4 | 8 | 1 | 3 | 2 | 5 |
| N.C. | 107 | 95 | 7 | 6 | 18 | 16 | 12 | 10 | 57 | 35 |
| S.C. | 54 | 89 | 7 | 23 | 1 | 5 | - | 2 | 5 | 1 |
| Ga. | 330 | 331 | 7 | 7 | 24 | 20 | 7 | 17 | 7 | 9 |
| Fla. | 290 | 345 | 38 | 48 | 67 | 82 | 12 | 13 | 31 | 16 |
| E.S. CENTRAL | 225 | 248 | 55 | 47 | 39 | 59 | 17 | 12 | 26 | 29 |
| Ky. | 31 | 41 | 17 | 8 | 15 | 23 | 4 | 2 | 11 | 6 |
| Tenn. | 96 | 100 | 21 | 10 | 15 | 19 | 8 | 2 | 9 | 8 |
| Ala. | 36 | 53 | 1 | 5 | 8 | 13 | 3 | 6 | 1 | 1 |
| Miss. | 62 | 54 | 16 | 24 | 1 | 4 | 2 | 2 | 5 | 14 |
| W.S. CENTRAL | 107 | 622 | 79 | 108 | 34 | 41 | 20 | 35 | 14 | 66 |
| Ark. | 31 | 50 | 1 | 3 | - | 2 | 1 | 1 | 2 | - |
| La. | 34 | 82 | 44 | 66 | 3 | 1 | 2 | 1 | 2 | 6 |
| Okla. | 22 | 37 | 2 | 2 | 2 | 4 | - | 1 | - | - |
| Tex. | 20 | 453 | 32 | 37 | 29 | 34 | 17 | 32 | 10 | 60 |
| MOUNTAIN | 283 | 328 | 29 | 21 | 43 | 39 | 14 | 18 | 12 | 7 |
| Mont. | 2 | 8 | 2 | 1 | 1 | 2 | - | 1 | - | - |
| Idaho | 6 | 4 | - | 1 | 6 | 3 | 1 | 1 | 2 | 2 |
| Wyo. | 7 | 22 | - | - | 4 | 2 | - | - | 2 | - |
| Colo. | 26 | 49 | 5 | 5 | 5 | 7 | 5 | 6 | 1 | - |
| N. Mex. | 10 | 24 | 7 | - | - | 2 | - | 2 | - | 1 |
| Ariz. | 158 | 155 | 4 | 4 | 10 | 9 | - | 5 | 1 | - |
| Utah | 28 | 22 | 2 | - | 14 | 10 | 1 | 2 | 6 | 1 |
| Nev. | 46 | 44 | 9 | 10 | 3 | 4 | 7 | 1 | - | 3 |
| PACIFIC | 389 | 468 | 38 | 35 | 38 | 36 | 61 | 63 | 48 | 40 |
| Wash. | 31 | 36 | 12 | 11 | 6 | 4 | 6 | 4 | 3 | - |
| Oreg. | 67 | 73 | 10 | 6 | N | N | 5 | 2 | 19 | 9 |
| Calif. | 275 | 344 | 13 | 17 | 32 | 32 | 48 | 54 | 26 | 30 |
| Alaska | 13 | 3 | - | - | - | - | - | - | - | 1 |
| Hawaii | 3 | 12 | 3 | 1 | - | - | 2 | 3 | N | N |
| Guam | - | 4 | - | 3 | - | - | - | - | - | - |
| P.R. | 20 | 75 | - | - | 1 | - | - | - | N | N |
| V.I. | - | - | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | U | - | U | - | U | - | U | - | U |

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 24, 2004, and July 19, 2003 (29th Week)***

| Reporting area | Malaria | | Meningococcal disease | | Pertussis | | Rabies, animal | | Rocky Mountain spotted fever | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 607 | 581 | 854 | 1,058 | 5,672 | 3,960 | 2,739 | 3,892 | 474 | 296 |
| NEW ENGLAND | 46 | 16 | 43 | 50 | 702 | 433 | 295 | 272 | 11 | 3 |
| Maine | 5 | 1 | 8 | 5 | 2 | 9 | 29 | 27 | - | - |
| N.H. | 1 | 3 | 3 | 3 | 26 | 26 | 11 | 13 | - | - |
| Vt. | 3 | - | 2 | - | 42 | 38 | 10 | 18 | - | - |
| Mass. | 22 | 12 | 24 | 31 | 604 | 334 | 119 | 97 | 9 | 3 |
| R.I. | 2 | - | 1 | 2 | 16 | 7 | 16 | 35 | 1 | - |
| Conn. | 13 | - | 5 | 9 | 12 | 19 | 110 | 82 | 1 | - |
| MID. ATLANTIC | 138 | 142 | 105 | 133 | 1,335 | 391 | 263 | 479 | 35 | 20 |
| Upstate N.Y. | 23 | 29 | 26 | 32 | 971 | 163 | 230 | 195 | 1 | - |
| N.Y. City | 63 | 70 | 18 | 31 | 76 | 55 | 4 | 5 | 5 | 7 |
| N.J. | 21 | 24 | 22 | 18 | 99 | 71 | - | 62 | 10 | 10 |
| Pa. | 31 | 19 | 39 | 52 | 189 | 102 | 29 | 217 | 19 | 3 |
| E.N. CENTRAL | 53 | 60 | 118 | 173 | 1,160 | 339 | 39 | 53 | 18 | 8 |
| Ohio | 18 | 11 | 46 | 45 | 266 | 120 | 15 | 19 | 10 | 4 |
| Ind. | 3 | 1 | 16 | 30 | 53 | 30 | 5 | 6 | 5 | - |
| Ill. | 9 | 28 | 12 | 47 | 177 | 30 | 11 | 7 | - | 2 |
| Mich. | 15 | 16 | 34 | 29 | 69 | 41 | 8 | 17 | 3 | 2 |
| Wis. | 8 | 4 | 10 | 22 | 595 | 118 | - | 4 | - | - |
| W.N. CENTRAL | 42 | 26 | 60 | 79 | 560 | 181 | 274 | 388 | 57 | 23 |
| Minn. | 18 | 13 | 16 | 18 | 94 | 59 | 37 | 16 | - | 1 |
| Iowa | 2 | 3 | 11 | 16 | 36 | 44 | 40 | 51 | - | 2 |
| Mo. | 10 | 3 | 18 | 30 | 183 | 43 | 20 | 7 | 47 | 17 |
| N. Dak. | 3 | 1 | 1 | 1 | 207 | 3 | 39 | 37 | - | - |
| S. Dak. | 1 | 1 | 2 | 1 | 9 | 3 | 10 | 83 | 3 | 1 |
| Nebr. | 2 | - | 2 | 6 | 3 | 3 | 53 | 69 | 6 | 2 |
| Kans. | 6 | 5 | 10 | 7 | 28 | 26 | 75 | 125 | 1 | - |
| S. ATLANTIC | 157 | 140 | 161 | 182 | 298 | 279 | 958 | 1,580 | 198 | 181 |
| Del. | 3 | - | 13 | 8 | 5 | 2 | 9 | 23 | - | - |
| Md. | 35 | 34 | 8 | 19 | 60 | 40 | 50 | 231 | 25 | 47 |
| D.C. | 8 | 7 | 4 | 3 | 2 | - | - | - | - | - |
| Va. | 15 | 16 | 10 | 18 | 85 | 59 | 258 | 308 | 9 | 6 |
| W. Va. | - | 4 | 5 | 3 | 5 | 6 | 34 | 50 | 1 | 4 |
| N.C. | 9 | 9 | 24 | 21 | 49 | 75 | 361 | 443 | 130 | 74 |
| S.C. | 7 | 3 | 12 | 14 | 28 | 35 | 85 | 129 | 9 | 10 |
| Ga. | 26 | 33 | 10 | 19 | 9 | 20 | 159 | 208 | 12 | 36 |
| Fla. | 54 | 34 | 75 | 77 | 55 | 42 | 2 | 188 | 12 | 4 |
| E.S. CENTRAL | 19 | 13 | 34 | 50 | 69 | 86 | 69 | 123 | 56 | 49 |
| Ky. | 1 | 1 | 4 | 10 | 15 | 20 | 15 | 21 | - | - |
| Tenn. | 3 | 4 | 10 | 12 | 36 | 44 | 23 | 83 | 25 | 28 |
| Ala. | 11 | 5 | 10 | 14 | 12 | 14 | 28 | 18 | 16 | 6 |
| Miss. | 4 | 3 | 10 | 14 | 6 | 8 | 3 | 1 | 15 | 15 |
| W.S. CENTRAL | 56 | 75 | 82 | 119 | 289 | 299 | 675 | 793 | 86 | 8 |
| Ark. | 6 | 4 | 12 | 10 | 9 | 21 | 31 | 25 | 56 | - |
| La. | 2 | 3 | 23 | 31 | 7 | 7 | - | 1 | 3 | - |
| Okla. | 2 | 3 | 5 | 10 | 17 | 37 | 71 | 139 | 27 | 2 |
| Tex. | 46 | 65 | 42 | 68 | 256 | 234 | 573 | 628 | - | 6 |
| MOUNTAIN | 27 | 17 | 41 | 54 | 578 | 556 | 73 | 82 | 9 | 4 |
| Mont. | - | - | 3 | 3 | 18 | 1 | 13 | 11 | 3 | 1 |
| Idaho | 1 | 1 | 6 | 6 | 20 | 35 | - | 3 | 1 | 1 |
| Wyo. | - | 1 | 2 | 2 | 11 | 119 | - | 1 | 1 | 2 |
| Colo. | 8 | 11 | 10 | 12 | 292 | 194 | 11 | 13 | - | - |
| N. Mex. | 1 | - | 5 | 7 | 65 | 36 | 2 | 5 | 1 | - |
| Ariz. | 8 | 2 | 8 | 20 | 120 | 98 | 45 | 40 | 1 | - |
| Utah | 5 | 1 | 4 | - | 42 | 54 | 2 | 5 | 2 | - |
| Nev. | 4 | 1 | 3 | 4 | 10 | 19 | - | 4 | - | - |
| PACIFIC | 69 | 92 | 210 | 218 | 681 | 1,396 | 93 | 122 | 4 | - |
| Wash. | 6 | 13 | 20 | 18 | 365 | 313 | - | - | - | - |
| Oreg. | 11 | 7 | 47 | 34 | 255 | 273 | 2 | 5 | 2 | - |
| Calif. | 51 | 69 | 138 | 152 | 44 | 802 | 83 | 112 | 2 | - |
| Alaska | - | - | 1 | 4 | 8 | 1 | 8 | 5 | - | - |
| Hawaii | 1 | 3 | 4 | 10 | 9 | 7 | - | - | - | - |
| Guam | - | - | - | - | - | 1 | - | - | - | - |
| P.R. | - | - | 4 | 7 | 2 | 1 | 31 | 43 | N | N |
| V.I. | - | - | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | U | - | U | - | U | - | U | - | U |

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 24, 2004, and July 19, 2003 (29th Week)***

| Reporting area | Salmonellosis | | Shigellosis | | Streptococcal disease, invasive, group A | | *Streptococcus pneumoniae*, invasive | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Drug resistant, all ages | | Age <5 years | |
| | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 17,287 | 19,234 | 5,658 | 12,588 | 2,956 | 3,897 | 1,350 | 1,329 | 370 | 458 |
| NEW ENGLAND | 895 | 1,006 | 133 | 170 | 135 | 352 | 15 | 70 | 7 | 6 |
| Maine | 37 | 62 | 2 | 6 | 6 | 20 | 2 | - | 1 | - |
| N.H. | 51 | 79 | 5 | 5 | 15 | 23 | - | - | N | N |
| Vt. | 28 | 35 | 2 | 5 | 8 | 16 | 7 | 6 | 1 | 3 |
| Mass. | 533 | 597 | 83 | 115 | 89 | 155 | N | N | N | N |
| R.I. | 48 | 40 | 9 | 4 | 17 | 5 | 6 | 10 | 5 | 3 |
| Conn. | 198 | 193 | 32 | 35 | - | 133 | - | 54 | U | U |
| MID. ATLANTIC | 2,571 | 2,285 | 647 | 1,322 | 485 | 688 | 99 | 88 | 72 | 67 |
| Upstate N.Y. | 560 | 471 | 308 | 178 | 165 | 261 | 46 | 46 | 50 | 49 |
| N.Y. City | 608 | 620 | 185 | 207 | 71 | 93 | U | U | U | U |
| N.J. | 330 | 394 | 98 | 222 | 94 | 137 | - | - | 2 | 2 |
| Pa. | 1,073 | 800 | 56 | 715 | 155 | 197 | 53 | 42 | 20 | 16 |
| E.N. CENTRAL | 2,012 | 2,850 | 383 | 1,084 | 606 | 954 | 322 | 305 | 107 | 200 |
| Ohio | 647 | 724 | 85 | 199 | 165 | 227 | 232 | 201 | 56 | 71 |
| Ind. | 212 | 273 | 87 | 77 | 70 | 88 | 90 | 104 | 22 | 18 |
| Ill. | 321 | 1,068 | 87 | 583 | 133 | 240 | - | - | - | 77 |
| Mich. | 432 | 389 | 61 | 151 | 206 | 276 | N | N | N | N |
| Wis. | 400 | 396 | 63 | 74 | 32 | 123 | N | N | 29 | 34 |
| W.N. CENTRAL | 1,237 | 1,094 | 202 | 393 | 205 | 231 | 11 | 11 | 52 | 52 |
| Minn. | 282 | 267 | 25 | 50 | 106 | 110 | - | - | 37 | 36 |
| Iowa | 249 | 184 | 40 | 26 | N | N | N | N | N | N |
| Mo. | 351 | 349 | 90 | 203 | 42 | 50 | 8 | 7 | 7 | 2 |
| N. Dak. | 19 | 23 | 2 | 6 | 9 | 11 | - | 3 | 2 | 4 |
| S. Dak. | 54 | 46 | 7 | 9 | 9 | 18 | 3 | 1 | - | - |
| Nebr. | 82 | 77 | 10 | 63 | 10 | 22 | - | - | 4 | 5 |
| Kans. | 200 | 148 | 28 | 36 | 29 | 20 | N | N | 2 | 5 |
| S. ATLANTIC | 4,192 | 4,322 | 1,505 | 3,921 | 582 | 647 | 698 | 697 | 26 | 12 |
| Del. | 32 | 48 | 3 | 144 | 3 | 6 | 4 | 1 | N | N |
| Md. | 426 | 402 | 69 | 310 | 120 | 161 | - | 5 | 15 | - |
| D.C. | 25 | 15 | 24 | 32 | 4 | 5 | 4 | - | 3 | 4 |
| Va. | 504 | 440 | 73 | 218 | 49 | 80 | N | N | N | N |
| W. Va. | 100 | 63 | 3 | - | 17 | 29 | 80 | 48 | 8 | 8 |
| N.C. | 491 | 533 | 153 | 515 | 85 | 75 | N | N | U | U |
| S.C. | 282 | 224 | 204 | 251 | 35 | 31 | 65 | 102 | N | N |
| Ga. | 661 | 777 | 348 | 811 | 120 | 125 | 160 | 156 | N | N |
| Fla. | 1,671 | 1,820 | 628 | 1,640 | 149 | 135 | 385 | 385 | N | N |
| E.S. CENTRAL | 1,037 | 1,232 | 336 | 555 | 138 | 133 | 80 | 98 | - | - |
| Ky. | 167 | 211 | 42 | 61 | 46 | 35 | 21 | 12 | N | N |
| Tenn. | 221 | 360 | 121 | 188 | 92 | 98 | 59 | 86 | N | N |
| Ala. | 319 | 285 | 141 | 187 | - | - | - | - | N | N |
| Miss. | 330 | 376 | 32 | 119 | - | - | - | - | - | - |
| W.S. CENTRAL | 1,499 | 2,784 | 1,310 | 3,444 | 167 | 178 | 36 | 52 | 72 | 71 |
| Ark. | 245 | 290 | 36 | 56 | 12 | 5 | 6 | 17 | 7 | 4 |
| La. | 274 | 391 | 170 | 271 | 2 | 1 | 30 | 35 | 12 | 14 |
| Okla. | 184 | 196 | 268 | 495 | 43 | 57 | N | N | 30 | 34 |
| Tex. | 796 | 1,907 | 836 | 2,622 | 110 | 115 | N | N | 23 | 19 |
| MOUNTAIN | 1,194 | 1,076 | 401 | 515 | 340 | 335 | 20 | 4 | 34 | 50 |
| Mont. | 77 | 50 | 4 | 2 | - | 1 | - | - | - | - |
| Idaho | 91 | 99 | 6 | 12 | 6 | 14 | N | N | N | N |
| Wyo. | 27 | 50 | 1 | 1 | 6 | 2 | 6 | 3 | - | - |
| Colo. | 286 | 268 | 67 | 93 | 89 | 90 | - | - | 30 | 38 |
| N. Mex. | 113 | 106 | 59 | 107 | 58 | 84 | 5 | - | - | 8 |
| Ariz. | 386 | 314 | 221 | 245 | 151 | 121 | N | N | N | N |
| Utah | 122 | 104 | 22 | 27 | 28 | 22 | 7 | 1 | 4 | 4 |
| Nev. | 92 | 85 | 21 | 28 | 2 | 1 | 2 | - | - | - |
| PACIFIC | 2,650 | 2,585 | 741 | 1,184 | 298 | 379 | 69 | 4 | - | - |
| Wash. | 251 | 299 | 58 | 96 | 34 | 41 | - | - | N | N |
| Oreg. | 227 | 221 | 37 | 55 | N | N | N | N | N | N |
| Calif. | 1,937 | 1,908 | 618 | 1,010 | 210 | 271 | N | N | N | N |
| Alaska | 37 | 50 | 4 | 4 | - | - | - | - | N | N |
| Hawaii | 198 | 107 | 24 | 19 | 54 | 67 | 69 | 4 | - | - |
| Guam | - | 28 | - | 23 | - | - | - | - | - | - |
| P.R. | 84 | 348 | 1 | 6 | N | N | N | N | N | N |
| V.I. | - | - | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | 3 | U | - | U | - | U | - | U | - | U |

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 24, 2004, and July 19, 2003 (29th Week)***

| Reporting area | Syphilis: Primary & secondary | | Syphilis: Congenital | | Tuberculosis | | Typhoid fever | | Varicella (Chickenpox) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 3,957 | 3,884 | 188 | 254 | 5,214 | 6,856 | 126 | 178 | 9,209 | 10,361 |
| NEW ENGLAND | 108 | 121 | 1 | - | 196 | 222 | 14 | 17 | 587 | 2,151 |
| Maine | 2 | 6 | - | - | - | 11 | - | - | 179 | 638 |
| N.H. | 3 | 14 | - | - | 9 | 10 | - | 1 | - | - |
| Vt. | - | - | - | - | - | 5 | - | - | 408 | 489 |
| Mass. | 70 | 77 | - | - | 122 | 107 | 12 | 9 | - | 107 |
| R.I. | 14 | 12 | - | - | 17 | 28 | 1 | 2 | - | 3 |
| Conn. | 19 | 12 | 1 | - | 48 | 61 | 1 | 5 | - | 914 |
| MID. ATLANTIC | 565 | 451 | 31 | 40 | 1,079 | 1,192 | 32 | 31 | 58 | 13 |
| Upstate N.Y. | 47 | 20 | 2 | 6 | 131 | 133 | 3 | 4 | - | - |
| N.Y. City | 307 | 260 | 10 | 22 | 547 | 641 | 10 | 18 | - | - |
| N.J. | 88 | 85 | 19 | 12 | 216 | 224 | 9 | 8 | - | - |
| Pa. | 123 | 86 | - | - | 185 | 194 | 10 | 1 | 58 | 13 |
| E.N. CENTRAL | 430 | 544 | 34 | 43 | 631 | 598 | 6 | 21 | 3,884 | 3,746 |
| Ohio | 124 | 116 | 1 | 2 | 108 | 104 | 2 | - | 1,016 | 924 |
| Ind. | 32 | 28 | 8 | 9 | 72 | 71 | - | 4 | - | - |
| Ill. | 146 | 223 | 3 | 16 | 279 | 275 | - | 10 | - | - |
| Mich. | 112 | 165 | 22 | 16 | 130 | 113 | 3 | 7 | 2,521 | 2,254 |
| Wis. | 16 | 12 | - | - | 42 | 35 | 1 | - | 347 | 568 |
| W.N. CENTRAL | 79 | 95 | 2 | 4 | 223 | 256 | 4 | 4 | 119 | 39 |
| Minn. | 14 | 32 | - | - | 84 | 93 | 3 | 2 | - | - |
| Iowa | 5 | 7 | - | - | 19 | 14 | - | 1 | N | N |
| Mo. | 40 | 32 | 1 | 4 | 61 | 70 | 1 | 1 | 2 | - |
| N. Dak. | - | - | - | - | 3 | - | - | - | 74 | 39 |
| S. Dak. | - | 1 | - | - | 5 | 16 | - | - | 43 | - |
| Nebr. | 4 | 3 | - | - | 15 | 11 | - | - | - | - |
| Kans. | 16 | 20 | 1 | - | 36 | 52 | - | - | - | - |
| S. ATLANTIC | 1,050 | 1,028 | 24 | 48 | 1,055 | 1,264 | 23 | 32 | 1,514 | 1,504 |
| Del. | 3 | 4 | 1 | - | - | - | - | - | 4 | 16 |
| Md. | 193 | 157 | 3 | 8 | 141 | 126 | 5 | 8 | - | - |
| D.C. | 46 | 31 | 1 | - | 40 | - | - | - | 17 | 18 |
| Va. | 60 | 54 | 2 | 1 | 117 | 129 | 2 | 11 | 378 | 422 |
| W. Va. | 2 | 1 | - | - | 12 | 11 | - | - | 890 | 882 |
| N.C. | 98 | 93 | 5 | 10 | 139 | 167 | 3 | 5 | N | N |
| S.C. | 63 | 63 | 1 | 4 | 112 | 85 | - | - | 225 | 166 |
| Ga. | 160 | 276 | 1 | 12 | 11 | 285 | 9 | 3 | - | - |
| Fla. | 425 | 349 | 10 | 13 | 483 | 461 | 4 | 5 | - | - |
| E.S. CENTRAL | 216 | 180 | 14 | 10 | 326 | 376 | 4 | 3 | - | - |
| Ky. | 25 | 23 | 1 | 1 | 54 | 67 | 2 | - | - | - |
| Tenn. | 76 | 74 | 7 | 2 | 127 | 122 | 2 | 1 | - | - |
| Ala. | 93 | 66 | 4 | 5 | 112 | 129 | - | 2 | - | - |
| Miss. | 22 | 17 | 2 | 2 | 33 | 58 | - | - | - | - |
| W.S. CENTRAL | 641 | 453 | 28 | 43 | 376 | 1,046 | 7 | 12 | 1,484 | 2,553 |
| Ark. | 24 | 29 | - | 1 | 63 | 54 | - | - | - | - |
| La. | 118 | 59 | - | 1 | - | - | - | - | 42 | 9 |
| Okla. | 19 | 30 | 2 | 1 | 80 | 75 | - | - | - | - |
| Tex. | 480 | 335 | 26 | 40 | 233 | 917 | 7 | 12 | 1,442 | 2,544 |
| MOUNTAIN | 189 | 170 | 32 | 24 | 253 | 211 | 5 | 4 | 1,563 | 355 |
| Mont. | - | - | - | - | 4 | - | - | - | - | - |
| Idaho | 13 | 4 | 2 | 1 | - | 5 | - | - | - | - |
| Wyo. | 1 | - | - | - | 2 | 2 | - | - | 22 | 37 |
| Colo. | 19 | 23 | - | 3 | 57 | 51 | 1 | 3 | 1,174 | - |
| N. Mex. | 26 | 34 | 1 | 4 | 14 | 29 | - | - | 67 | - |
| Ariz. | 114 | 99 | 29 | 16 | 117 | 85 | 2 | 1 | - | - |
| Utah | 3 | 2 | - | - | 23 | 18 | 1 | - | 300 | 318 |
| Nev. | 13 | 8 | - | - | 36 | 21 | 1 | - | - | - |
| PACIFIC | 679 | 842 | 22 | 42 | 1,075 | 1,691 | 31 | 54 | - | - |
| Wash. | 55 | 40 | - | - | 129 | 134 | 2 | 2 | - | - |
| Oreg. | 18 | 28 | - | - | 40 | 62 | 1 | 2 | - | - |
| Calif. | 603 | 767 | 22 | 42 | 828 | 1,404 | 22 | 50 | - | - |
| Alaska | - | 1 | - | - | 17 | 34 | - | - | - | - |
| Hawaii | 3 | 6 | - | - | 61 | 57 | 6 | - | - | - |
| Guam | - | 1 | - | - | - | 38 | - | - | - | 90 |
| P.R. | 66 | 114 | 3 | 8 | 14 | 49 | - | - | 156 | 362 |
| V.I. | 4 | 1 | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | 2 | U | - | U | 10 | U | - | U | - | U |

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

**TABLE III. Deaths in 122 U.S. cities,* week ending July 24, 2004 (29th Week)**

| Reporting Area | All causes, by age (years) | | | | | | P&I† Total |
|---|---|---|---|---|---|---|---|
| | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | |
| NEW ENGLAND | 509 | 352 | 112 | 23 | 14 | 8 | 45 |
| Boston, Mass. | 128 | 82 | 31 | 6 | 5 | 4 | 13 |
| Bridgeport, Conn. | 36 | 24 | 10 | 2 | - | - | 1 |
| Cambridge, Mass. | 16 | 12 | 3 | 1 | - | - | 1 |
| Fall River, Mass. | 30 | 23 | 7 | - | - | - | 2 |
| Hartford, Conn. | 50 | 37 | 6 | 3 | 1 | 3 | 8 |
| Lowell, Mass. | 19 | 11 | 7 | - | 1 | - | 3 |
| Lynn, Mass. | 7 | 5 | 2 | - | - | - | 1 |
| New Bedford, Mass. | 31 | 26 | 5 | - | - | - | 4 |
| New Haven, Conn. | 22 | 14 | 3 | 4 | - | 1 | 4 |
| Providence, R.I. | 44 | 32 | 9 | 3 | - | - | 1 |
| Somerville, Mass. | 1 | 1 | - | - | - | - | - |
| Springfield, Mass. | 38 | 25 | 7 | 3 | 3 | - | 3 |
| Waterbury, Conn. | 26 | 18 | 6 | 1 | 1 | - | 2 |
| Worcester, Mass. | 61 | 42 | 16 | - | 3 | - | 2 |
| MID. ATLANTIC | 2,042 | 1,337 | 461 | 146 | 55 | 39 | 91 |
| Albany, N.Y. | 41 | 29 | 9 | 2 | - | 1 | - |
| Allentown, Pa. | 21 | 17 | 4 | - | - | - | 1 |
| Buffalo, N.Y. | 74 | 55 | 12 | 7 | - | - | 6 |
| Camden, N.J. | 29 | 14 | 8 | 2 | 3 | 2 | - |
| Elizabeth, N.J. | 17 | 10 | 6 | 1 | - | - | - |
| Erie, Pa. | 46 | 28 | 16 | 2 | - | - | 1 |
| Jersey City, N.J. | 25 | 16 | 6 | 3 | - | - | - |
| New York City, N.Y. | 1,006 | 677 | 218 | 65 | 24 | 18 | 43 |
| Newark, N.J. | 46 | 21 | 13 | 6 | 4 | 2 | 2 |
| Paterson, N.J. | 14 | 8 | 4 | 1 | 1 | - | - |
| Philadelphia, Pa. | 394 | 223 | 102 | 41 | 16 | 12 | 21 |
| Pittsburgh, Pa.§ | 16 | 12 | 4 | - | - | - | 1 |
| Reading, Pa. | 20 | 14 | 3 | 1 | 1 | 1 | 2 |
| Rochester, N.Y. | 111 | 83 | 19 | 6 | 2 | 1 | 7 |
| Schenectady, N.Y. | 16 | 12 | 3 | - | 1 | - | 1 |
| Scranton, Pa. | 22 | 18 | 3 | - | 1 | - | 1 |
| Syracuse, N.Y. | 67 | 52 | 9 | 2 | 2 | 2 | 3 |
| Trenton, N.J. | 41 | 24 | 13 | 4 | - | - | 1 |
| Utica, N.Y. | 16 | 9 | 6 | 1 | - | - | - |
| Yonkers, N.Y. | 20 | 15 | 3 | 2 | - | - | 1 |
| E.N. CENTRAL | 2,095 | 1,388 | 456 | 159 | 48 | 43 | 118 |
| Akron, Ohio | 45 | 28 | 12 | 3 | 1 | 1 | 4 |
| Canton, Ohio | 27 | 20 | 6 | - | 1 | - | 4 |
| Chicago, Ill. | 332 | 200 | 90 | 34 | 4 | 3 | 17 |
| Cincinnati, Ohio | 55 | 41 | 9 | 1 | 3 | 1 | 3 |
| Cleveland, Ohio | 227 | 170 | 40 | 10 | 5 | 2 | 6 |
| Columbus, Ohio | 205 | 141 | 38 | 13 | 7 | 6 | 17 |
| Dayton, Ohio | 117 | 93 | 17 | 5 | 1 | 1 | 8 |
| Detroit, Mich. | 179 | 98 | 49 | 21 | 5 | 6 | 14 |
| Evansville, Ind. | 49 | 36 | 9 | 4 | - | - | 3 |
| Fort Wayne, Ind. | 78 | 53 | 15 | 7 | 1 | 2 | 6 |
| Gary, Ind. | 10 | 4 | 3 | 1 | 2 | - | - |
| Grand Rapids, Mich. | 72 | 48 | 15 | 4 | 1 | 4 | 4 |
| Indianapolis, Ind. | 203 | 116 | 58 | 15 | 7 | 7 | 9 |
| Lansing, Mich. | 46 | 32 | 8 | 5 | 1 | - | 2 |
| Milwaukee, Wis. | 132 | 72 | 38 | 13 | 3 | 6 | 7 |
| Peoria, Ill. | 47 | 34 | 10 | 2 | 1 | - | 2 |
| Rockford, Ill. | 51 | 32 | 11 | 5 | 3 | - | 4 |
| South Bend, Ind. | 31 | 27 | 3 | 1 | - | - | - |
| Toledo, Ohio | 104 | 75 | 15 | 11 | 1 | 2 | 4 |
| Youngstown, Ohio | 85 | 68 | 10 | 4 | 1 | 2 | 4 |
| W.N. CENTRAL | 599 | 394 | 135 | 38 | 22 | 10 | 37 |
| Des Moines, Iowa | 55 | 43 | 9 | 2 | - | 1 | 5 |
| Duluth, Minn. | 17 | 12 | 3 | 1 | - | 1 | - |
| Kansas City, Kans. | 30 | 19 | 7 | 2 | 1 | 1 | 2 |
| Kansas City, Mo. | 91 | 56 | 21 | 7 | 5 | 2 | 7 |
| Lincoln, Nebr. | 49 | 37 | 7 | 3 | 1 | 1 | 4 |
| Minneapolis, Minn. | 70 | 39 | 20 | 6 | 3 | 2 | 2 |
| Omaha, Nebr. | 78 | 49 | 18 | 8 | 3 | - | 7 |
| St. Louis, Mo. | 83 | 52 | 22 | 5 | 3 | 1 | 6 |
| St. Paul, Minn. | 63 | 41 | 14 | 4 | 3 | 1 | 1 |
| Wichita, Kans. | 63 | 46 | 14 | - | 3 | - | 3 |
| S. ATLANTIC | 1,182 | 726 | 293 | 106 | 30 | 27 | 55 |
| Atlanta, Ga. | 139 | 80 | 37 | 17 | 3 | 2 | 3 |
| Baltimore, Md. | 161 | 88 | 45 | 19 | 7 | 2 | 13 |
| Charlotte, N.C. | 97 | 63 | 21 | 7 | 3 | 3 | 3 |
| Jacksonville, Fla. | 154 | 97 | 28 | 22 | 4 | 3 | 2 |
| Miami, Fla. | 99 | 64 | 24 | 7 | 2 | 2 | 11 |
| Norfolk, Va. | 58 | 34 | 15 | 4 | 2 | 3 | 6 |
| Richmond, Va. | 55 | 29 | 18 | 3 | 1 | 4 | 1 |
| Savannah, Ga. | 50 | 32 | 10 | 3 | 4 | 1 | 3 |
| St. Petersburg, Fla. | 63 | 46 | 11 | 4 | 2 | - | 3 |
| Tampa, Fla. | 191 | 123 | 53 | 8 | 1 | 6 | 8 |
| Washington, D.C. | 102 | 59 | 30 | 12 | - | 1 | 2 |
| Wilmington, Del. | 13 | 11 | 1 | - | 1 | - | - |
| E.S. CENTRAL | 824 | 502 | 217 | 64 | 24 | 14 | 47 |
| Birmingham, Ala. | 190 | 124 | 39 | 12 | 8 | 4 | 19 |
| Chattanooga, Tenn. | 92 | 61 | 19 | 7 | 2 | 3 | 4 |
| Knoxville, Tenn. | 122 | 76 | 34 | 8 | 4 | - | 2 |
| Lexington, Ky. | 34 | 21 | 10 | 3 | - | - | - |
| Memphis, Tenn. | 132 | 71 | 48 | 10 | 2 | 1 | 10 |
| Mobile, Ala. | 83 | 54 | 25 | 3 | 1 | - | 1 |
| Montgomery, Ala. | 23 | 13 | 8 | 2 | - | - | 3 |
| Nashville, Tenn. | 148 | 82 | 34 | 19 | 7 | 6 | 8 |
| W.S. CENTRAL | 1,585 | 985 | 383 | 112 | 61 | 44 | 85 |
| Austin, Tex. | 78 | 48 | 16 | 8 | 3 | 3 | 6 |
| Baton Rouge, La. | 12 | 6 | 1 | 2 | 1 | 2 | - |
| Corpus Christi, Tex. | 72 | 49 | 15 | 2 | 4 | 2 | 3 |
| Dallas, Tex. | 245 | 149 | 54 | 24 | 7 | 11 | 13 |
| El Paso, Tex. | 142 | 96 | 34 | 5 | 5 | 2 | 7 |
| Ft. Worth, Tex. | 138 | 86 | 29 | 12 | 8 | 3 | 5 |
| Houston, Tex. | 364 | 219 | 91 | 26 | 16 | 12 | 22 |
| Little Rock, Ark. | 82 | 43 | 26 | 5 | 5 | 3 | - |
| New Orleans, La. | 48 | 23 | 16 | 7 | 2 | - | - |
| San Antonio, Tex. | 275 | 196 | 57 | 12 | 6 | 4 | 14 |
| Shreveport, La. | 43 | 24 | 15 | 1 | 1 | 2 | 4 |
| Tulsa, Okla. | 86 | 46 | 29 | 8 | 3 | - | 11 |
| MOUNTAIN | 968 | 624 | 214 | 71 | 33 | 25 | 53 |
| Albuquerque, N.M. | 158 | 99 | 34 | 18 | 6 | 1 | 4 |
| Boise, Idaho | 35 | 28 | 2 | 1 | 2 | 2 | 6 |
| Colo. Springs, Colo. | 47 | 32 | 9 | 1 | 4 | 1 | 2 |
| Denver, Colo. | 102 | 59 | 30 | 9 | - | 4 | 10 |
| Las Vegas, Nev. | 259 | 167 | 57 | 20 | 10 | 5 | 10 |
| Ogden, Utah | 22 | 16 | 4 | 1 | - | 1 | 2 |
| Phoenix, Ariz. | 71 | 39 | 21 | 5 | 4 | 1 | 2 |
| Pueblo, Colo. | 37 | 30 | 6 | 1 | - | - | 4 |
| Salt Lake City, Utah | 80 | 51 | 17 | 3 | 3 | 6 | 4 |
| Tucson, Ariz. | 157 | 103 | 34 | 12 | 4 | 4 | 9 |
| PACIFIC | 1,482 | 987 | 312 | 101 | 52 | 29 | 119 |
| Berkeley, Calif. | 13 | 8 | 3 | - | - | 2 | 1 |
| Fresno, Calif. | 101 | 70 | 17 | 10 | 3 | 1 | 3 |
| Glendale, Calif. | 12 | 8 | 3 | 1 | - | - | 2 |
| Honolulu, Hawaii | 61 | 40 | 17 | 2 | - | 2 | 4 |
| Long Beach, Calif. | 74 | 41 | 23 | 4 | 4 | 2 | 9 |
| Los Angeles, Calif. | 196 | 138 | 34 | 13 | 9 | 2 | 27 |
| Pasadena, Calif. | 23 | 14 | 3 | 4 | 1 | 1 | 4 |
| Portland, Oreg. | 98 | 62 | 25 | 6 | 3 | 2 | 3 |
| Sacramento, Calif. | 203 | 144 | 38 | 12 | 5 | 4 | 11 |
| San Diego, Calif. | 155 | 106 | 32 | 7 | 5 | 4 | 10 |
| San Francisco, Calif. | 76 | 46 | 22 | 6 | 1 | 1 | 9 |
| San Jose, Calif. | 191 | 130 | 33 | 14 | 9 | 5 | 19 |
| Santa Cruz, Calif. | 27 | 18 | 6 | 2 | 1 | - | 2 |
| Seattle, Wash. | 116 | 66 | 32 | 10 | 6 | 2 | 9 |
| Spokane, Wash. | 44 | 30 | 9 | 4 | 1 | - | 3 |
| Tacoma, Wash. | 92 | 66 | 15 | 6 | 4 | 1 | 3 |
| TOTAL | 11,286¶ | 7,295 | 2,583 | 820 | 339 | 239 | 650 |

U: Unavailable. -:No reported cases.

* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

† Pneumonia and influenza.

§ Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶ Total includes unknown ages.

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